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ANNUAL REPORT

OF THE

QUARTERMASTER GENERAL,

OF THE OPERATIONS OF

THE QUARTERMASTER'S DEPARTMENT,

FOR THE FISCAL YEAR ENDING ON THE
30TH JUNE, 1850.

WASHINGTON:
C. ALEXANDER, PRINTER,
1851.



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REPORT

OF THE

QUARTERMASTER GENERAL.

QUARTERMASTER GENERAL'S OFFICE,
Washington City, November 20, 1850.

SIR: In obedience to your order, and in compliance with the regulations, I have the honor to report the operations of the Quartermaster's department for the fiscal year which terminated on the 30th of June last.

When I presented my report of the preceding year, the balances in the hands of officers acting in the department, to be accounted for, amounted to - - - - - \$730,150 46

To which is to be added—

1. Remittances, viz:

In the 1st quarter of the fiscal year	\$685,789 00	
In the 2d quarter of the fiscal year	1,156,856 77	
In the 3d quarter of the fiscal year	937,572 91	
In the 4th quarter of the fiscal year	503,487 54	
		3,283,706 22

2. Miscellaneous items, viz:

Proceeds of the sales of public property and rents of public buildings	-	109,036 02
Amount borrowed from the civil fund in California and applied, by order of the generals in command on the Pacific, to the service of the Quartermaster's department	-	751,743 29
Proceeds of drafts drawn on this office by officers of the department, on account of the service of last year, which is a charge upon the appropriations of the present year,	-	539,117 03
Amount paid at the treasury, on accounts which had been examined and passed at this office	-	47,460 28
Total to be accounted for	-	5,461,213 30

From which are to be deducted—

1. Expenditures, viz:

Prior to the fiscal year, but the accounts for which were not received in time for the last report	-	\$275,050 59
In the 1st quarter of the fiscal year	-	\$1,292,372 67
In the 2d quarter	-	1,448,602 44
In the 3d quarter	-	965,861 86
In the 4th quarter	-	645,795 75
		4,352,632 72
Deposited to the credit of the treasurer	46,611 70	4,674,295 01
Leaving to be accounted for	-	786,918 29

The accounts of three deceased officers are due; also of two assistant quartermasters, and forty-four regimental and acting quartermasters, and agents. These accounts, when received, will reduce the balance now reported, it is believed, over three hundred thousand dollars.

A heavy arrearage accrued during the last fiscal year, from the entire inadequacy of the appropriations to meet the necessary expenditures under the new and extraordinary circumstances of the service. When the estimates were decided upon by the late executive, in the autumn of 1848, the war expenditures still to be made were supposed not to be so large as they turned out to be; hence the balances of the war appropriations, applicable to the service of the year, fall far short of what had been counted on.— Added to which, the Indian hostilities in Florida, Texas, and New Mexico, which have caused a heavy expenditure, were neither foreseen nor provided for. Nor was any provision made in the estimates to meet the state of things in California, where the expenditures of the Quartermaster's department in the last year, for the small force employed, have nearly equalled those for the whole army in 1845.

The arrearages, as far as ascertained, will be seen in the amount stated as borrowed from the civil fund in California, and that raised by the disbursing officers of the department, on drafts on this office, which were necessary in the absence of appropriations to carry on the service; and which are a charge on the appropriation for the present fiscal year. The whole amount of the arrearage will be required in this year.

In the year ending the 30th of June, 1844, the whole amount expended by the Quartermaster's department was \$871,000. The foregoing statement shows that the sum expended in the last fiscal year was fivefold that amount. Now, the army has been increased since that date a little more than one-half; and had the circumstances of the service remained the same, the increase should have been in the same ratio, or but little more than fifty per cent. The enormous increase of the expenditures is to be accounted for, in addition to the circumstances before stated, by the vast extension of our territory in the annexation of Texas, New Mexico, and California, the stationing of troops there and in Oregon, and keeping up long lines of communication between our former frontier and those Territories.

In 1844 the extreme western posts, extending from the Gulf of Mexico to Lake Superior, were Fort Jesup, within twenty-four miles of steam navigation, on Red river; Forts Towson and Washita, on Red river, and above Fort Jesup; Forts Smith and Gibson, on the navigable waters of Arkansas river; Fort Scott, on the southwest frontier of Missouri; Fort Leavenworth, on Missouri river; Fort Snelling, near the head of navigation on the Mississippi; and Fort Wilkins, on Lake Superior. Several of these posts were in populous and well-cultivated neighborhoods, and all of them were of easy access, and readily and cheaply supplied; consequently the whole cost of transportation for the army in the year referred to was less than one hundred and twenty thousand dollars.

The outposts are now removed to the Rio Grande, the Gila, the Pacific coast, Columbia river, and Puget's Sound, with long intermediate lines of posts between the former and the present frontiers. The agricultural resources of the new Territories have been but partially developed: those

of California and New Mexico are supposed to be limited. In the former the gold excitement, and in the latter the hostile disposition of the Indians, prevents the inhabitants from availing themselves of the few agricultural advantages they are supposed to possess. Western and northern Texas and Oregon have abundant agricultural resources; but the gold excitement and the Indian hostilities produce the same effects there, though not in so great a degree, as in California and New Mexico. The reinforcements for the troops, as well as nearly all their supplies, are taken from the older States, over long land and water routes, at an enormous expense. Large trains belonging to the public, and hired, have been constantly moving over the land routes, and with the troops in the field; and vessels, at an expense bearing some relation to the great increase in the cost of labor, have been employed in transporting troops and building materials, forage and other supplies, on the water routes; the consequence of all which is, that, with the army increased a little more than one-half, or fifty per cent., the cost of transportation in the last fiscal year has equalled two millions of dollars, or more than fifteen hundred per cent.

In the present condition of the newly-acquired territories, with the posts established for their defence necessarily so far from the sources of supply, and so large a portion of their garrisons mounted, more than ten thousand horses, oxen, and mules are constantly required for transportation, and for mounting guides, spies, escorts, and troops; forage is therefore a heavy item of expense. The supply of fuel is limited throughout those territories, and is obtained with difficulty at many of the present posts: it is a heavy item. So is the hire of mechanics, laborers, and other operatives; also the rent, erection, and repair of quarters, barracks, store-houses, and other structures required for the service. The expense of neither can be much reduced, even with the most faithful and rigid administration, unless the circumstances of the whole country in relation to its cultivation, communications, and means of defence, be changed.

The nomadic Indians between Texas and New Mexico have, as long as we can trace their history back, and down to a recent period, followed and subsisted upon the immense herds of buffalo that once covered the plains east of the Rocky mountains. The buffalo have been rapidly diminishing for many years past, and now afford the Indians a very scanty supply. These Indians have ever been warlike, well mounted, and well armed. The rapid disappearance of their accustomed means of subsistence has, for some time past, compelled them to fight, steal, or starve.— Brave men in a savage state, with arms in their hands, never starve themselves, nor allow their women and children to starve, when subsistence can be won by prowess or skill. For half a century past, as the game has diminished, they have been in the habit of making inroads into the Mexican provinces; and they have at length broken into and overrun some of the better portions of those provinces, as the northern hordes formerly broke into and overrun the Roman empire. Recently they have made inroads into Texas; and there, as well as in New Mexico, they have given the troops as constant and active employment as if a state of war had existed. So far as our own territories and people are concerned, this state of things is the natural and necessary result of our treaty for the protection of Mexico. Give the Indians a fair field for their predatory expe-

ditions in that republic, and they will never trouble us ; but if we carry out the provisions of our treaty with Mexico in good faith—and no American, I take it for granted, would advise the contrary—the existing state of things, and the heavy expense attending it, must and will continue, unless we either feed or exterminate the Indians, or prevail upon them to settle down as cultivators of the soil. No treaty we can make with them—no matter what their wishes, or how well disposed soever they may be to fulfil their engagements—will bind them longer than their means of subsistence last. The moment these are lacking, resort must necessarily be had to the only available mode of supply—to hesitate would for them be to starve.

The estimates for the next fiscal year are made from a careful consideration of all the circumstances of the service and a minute calculation of its wants. If these circumstances remain unchanged, and the *objects* of expenditure be not greatly reduced, the estimates will bear no reduction ; and I respectfully urge the necessity of the whole being appropriated.— Unless objects of expenditure be reduced, the cutting of estimates down may produce arrearages and embarrass the public service, but will not save money.

The regiment of mounted riflemen, for which means of transportation and supplies had been provided before the commencement of the year, were marched across the continent during the year, and stationed in the Territory of Oregon, with the exception of two companies left at Fort Laramie on the route, about seven hundred miles in advance of Fort Leavenworth. For a portion of the troops, quarters were erected, and for others, and for stores, buildings were hired. Fort Vancouver is the most important point to be occupied in that Territory. It is now garrisoned, and is the principal depot of the Quartermaster's department. It is, I believe, the property of the Hudson Bay Company ; and if it can be obtained on any thing like fair terms, it should be purchased. It is said to be the only place in the Territory where a mounted regiment can now be conveniently stationed ; it has fair pasture ranges, fields for cavalry evolutions, and is accessible for supplies through three rivers—the Columbia, the Willamette, and the Cowlitz—all communicating with the most fertile parts of the Territory. Building materials are abundant in Oregon, and a saw-mill had been put up at Fort Vancouver ; and, at the last report, one was to be sent to Astoria and another to the Dalles. For detailed information in regard to the march of the rifle regiment, and establishing it on the route and in Oregon, I respectfully refer to the report of Major Cross, which is appended, marked A.

In the course of the year a considerable amount of supplies has been sent from the Atlantic to California. Two storehouses, with quarters for two companies, including officers, were framed and sent from the State of Maine, and six small iron buildings were sent from New York as an experiment. These buildings, it is ascertained, will cost far less than those put up from materials obtained in California.

Quarters, storehouses, and other buildings are required at San Diego, Gila, and Colorado, Las Reyes, Clear Lake, camp Far West, Benicia, and San Francisco, in addition to buildings already put up, and at Monterey. The estimates from the Pacific for the necessary buildings, and

including transportation for the division, are over twenty-six hundred thousand dollars. By sending all the materials from the Atlantic, with mechanics to erect the buildings, it is believed that the cost may be greatly reduced ; and I propose, if it meet your approbation, to adopt that course.

For detailed information in regard to California, as well as Oregon, I respectfully refer to the report of Major Vinton, herewith submitted, with the reports and statements accompanying it, marked B.

Supplies of every description due from this department have been sent from Fort Leavenworth, in Missouri, and San Antonio, Texas, to New Mexico ; and transportation has been furnished for troops marching thither, as well as for the supplies of other departments. Great difficulty is found in supplying the trains and the horses of the mounted troops with forage in New Mexico. The whole surplus products of the country, after supplying the inhabitants, would hardly be sufficient for the public demands if they were available ; but much of them necessarily goes into the hands of the numerous bodies of emigrants passing to California by the route of the Gila. The difficulty can be obviated only by such a policy as shall secure the cultivator, not merely from attack while engaged in the business of cultivation, but in the quiet possession of his crop after it has matured.—The most industrious portion of the population are said to be the *pueblo* or *village* Indians, (Mexicans.) They suffer from the depredations of the wild or mountain Indians. They are represented as almost entirely without arms. Were they armed, and the troops so disposed as to afford their settlements efficient protection, they would not only diminish the public expenses by increasing the supplies, but would be the cheapest as well as the best auxiliaries of our troops in their operations against the *hostile* Indians. For information in detail I refer to the subjoined report of Captain Brent, who was nearly two years the principal quartermaster in that Territory, with the report of Captain Bowman and Lieutenant Whittlesey appended to it, marked C.

Throughout the year, the troops in Texas have been more like an army in the field, in active war, than in garrison ; and the regular force has been increased by an auxiliary volunteer force. Supplies, with extensive means of transportation, both public and private, and horses to mount a portion of the foot, have been furnished as required by the general commanding.

The territory of Texas is so vast that the troops for its defence, as well as the trains to supply the posts on its frontier, have to traverse routes so long and so entirely unimproved, that the expense of transportation and of all supplies is extremely heavy. In connexion with this subject, I took occasion in my last annual report to ask the attention of your predecessor to the importance of improving the harbors, rivers, and roads of Texas. I now take the liberty of asking your attention to the matter.—The improvement of the harbors of Texas, with that of the navigation of the Rio Grande, the Guadalupe, Colorado, Trinity and upper Red river, with the construction of good roads between the frontier posts and those posts and accessible points on the coast and rivers, would be worth infinitely more, in the defence of the frontier, than any system of fortification.

In regard to the state of the service on the frontier of Texas, and the

condition of the Rio Grande, I respectfully submit copies of reports from Captain French, (marked D,) and Major Chapman, (marked E.)

Transportation and supplies were furnished throughout the year for the troops operating in Florida; also, transportation for captured Indians from the scene of operations to New Orleans.

In relation to matters there, I respectfully refer to the report of Major Myers, (marked F,) with the memoranda appended.

In regard to army expenditures generally, it may not be out of place here to remark, that the cost of supporting a given number of troops is the same to most of the administrative departments of the military service, no matter where they be stationed. In the pay and subsistence departments, the allowances being determined by positive law, the expense depends upon the actual force, and is materially affected only by the increase or diminution of numbers and grades. In the Quartermaster's department the case is entirely different: there, the expenditures are influenced by all the varying and contingent circumstances of the service, as well as the condition and resources of the country in which the troops are employed. Take, for instance, New Mexico and the posts on the Oregon route; also Texas; and both pay and subsistence depend upon the number employed, and would be about the same, were the force there stationed on the Atlantic. But, from the remoteness of all posts in these territories from the sources of supply, and the difficulties and danger attending the communication with them, the expense to the Quartermaster's department is from three to five hundred per cent. more there, than it would be on the Atlantic—in some items, more than a thousand per cent. As the troops become more active, or as their numbers are increased at these remote stations, the expense must increase, and the only abatement of this expense, perhaps, possible, will be in the settlement and cultivation of the surrounding country, whence a portion of the supplies may be drawn at less expense than to transport them from the seaboard or western depôts.

The present state of the service requires the employment of a large force of mechanics, teamsters, laborers, and other operatives. All these classes are now hired, and, in many instances, at exorbitant rates; and, in the extended operations over our territories, from the want of any legal control over them, their duties are often badly performed. As a measure calculated to promote both economy and efficiency, I recommend that provision be made by law for enlisting a portion, at least, of the several classes enumerated, for a period not less than two years, and that all of those classes necessarily employed in the field, or on the long routes through the Indian country, be made subject to the rules and articles of war, whether enlisted or hired.

The laws at present authorize the appointment of twenty forage and wagon-masters; that number is not sufficient for the present wants of the service. Barrack-masters and additional storekeepers are necessary. I recommend that twenty additional wagon and forage-masters be authorized, and that ten additional storekeepers be added to the Quartermaster's department; also, a barrack-master at every principal station where there is neither a quartermaster nor a storekeeper—all to perform such duties as

may be prescribed by the Secretary of War, or directed by the Quartermaster General or the principal quartermaster at the station, or on duty in the division or department, where these classes of officers may respectively serve.

I respectfully request that measures be adopted to obtain a more ready settlement of the accounts of the officers of the department at the treasury. The officers are compelled by law to send their accounts for settlement within three months after the close of the quarter in which they accrue, on the penalty of dismissal. These accounts often remain unsettled for years. Justice requires that the accounts be promptly settled. I also ask that the laws be so changed as that all the accounts of the Quartermaster's department be settled by the same auditor. At present they are settled by the Second and Third Auditors, and it often happens that not only vouchers in the same account, but items in the same voucher, have to go to both auditors. The property accounts have to be divided between the two auditors. The consequence is, that the officers of the department, as well as the officers of the mounted corps, have to make two sets of property accounts in every quarter. If the proposed change could be made, the accountability would be more perfect, because accounts would be more simple.

I have the honor to be, sir, your obedient servant,

TH. S. JESUP,

Quartermaster General.

Hon. C. M. CONRAD,

Secretary of War, Washington City.

A.

A report, in the form of a journal, to the Quartermaster General, of the march of the regiment of mounted riflemen to Oregon, from May 20 to October 5, 1849, by Major O. Cross, quartermaster United States army.

QUARTERMASTER GENERAL'S OFFICE,

Washington City, April 25, 1849.

SIR: You will proceed to St. Louis, Missouri, and report to Colonel Mackay, for service with the Oregon expedition. Detailed instructions will be sent to you, from this office, as soon as certain matters now under the consideration of the War Department be determined. So soon as the troops shall be established on the Columbia, or in the Territory of Oregon, and the necessary arrangements made for their future supply, you will be expected to return to this city, via the Isthmus or Mazatlan, and through Mexico, so as to arrive, if possible, early in the next session of Congress.

Respectfully, &c.,

TH. S. JESUP,

Quartermaster General.

Major OSBORNE CROSS,

Quartermaster, Washington City.

REPORT, ETC.

CHAPTER I.

Journey to Fort Kearny.

PHILADELPHIA, May 20, 1850.

GENERAL: The order which I have here annexed will show the duty assigned me by you; and in compliance with it, I took my departure from Washington city, on the 25th of April, for Fort Leavenworth, Missouri, where the rifle regiment had been directed to assemble, to make such preparations as a march like the one contemplated might call for.

I arrived at St. Louis on the 8th of May, and finding that the cholera was prevailing to a very alarming extent, left on the 10th, on board of the steamer San Francisco, after making a hasty outfit there. It will not be out of place here to remark, that the cholera was not only in St. Louis, but had spread through every town on the Missouri river, and in many instances had raged with great violence on board of several steamers, one of which, after losing nearly thirty passengers, was entirely abandoned and left tied to the shore. We were, however, more fortunate on board of our boat, having but one case, which may be principally attributed to the untiring efforts of Captain Keneth, her commander, who spared no pains to keep his boat in excellent police, and make his passengers comfortable.

The troops had just passed up the river; and with so great a number, it could hardly be expected that they would not be more or less affected by the epidemic; I was, therefore, exceedingly anxious to reach Fort Leavenworth, to ascertain what effect a pure atmosphere would have in dispelling a disease with which all were in some degree threatened who travelled the Missouri river, and I was much pleased when I landed, on the 19th instant, at that place, after a passage of nine days from St. Louis.

It was expected that the regiment would be in readiness to take the field by the first of May, but it was not prepared to do so, for several reasons, until the 10th instant. To organize properly a train, and make all necessary arrangements incidental to a journey of 2,000 miles, required much more time than was at first anticipated. The officers were to make an outfit for a permanency in Oregon, or at least they were to be separated from the civilized world for some time, with their families, and it was by no means an easy task to make all proper arrangements even for their comfort while on this long march; but in addition to this, the spring had not advanced sufficiently to justify an earlier move.

On inquiring at the fort, I learned that the troops were ten days in advance of me, which was a very long start, as my mode of travelling was the same as that of the regiment. If I could have been fortunate enough to have procured a few pack-mules, in place of wagons, it would have

greatly facilitated my movements, as I could have travelled much more rapidly; but not being able to do so, I had no time to lose, and on Sunday, at 2 o'clock p. m., I left for Fort Kearny, after a short stay of twenty-four hours at this place.

Last evening was very pleasant, and the sun, in setting, left behind a bright sky, which was indicative of a fair morning; but, contrary to our expectations, it became cold and commenced to rain during the night, which made it extremely disagreeable for our party, whose only shelter was a common tent; but as they had to come to it sooner or later, every one took it quietly and made themselves as comfortable as their means would permit. Many of them were unaccustomed to a life of this kind; and the scenes they were about to pass through, as well as the toil and hardships which they would be required to endure, would be a new life to them, of which, in reality, they knew but very little.

It had been threatening to rain all the morning, and continued cold. The sky was becoming overcast by heavy clouds that were rising rapidly in the southwest, and it began to rain very hard before reaching the base of a hill over which our road led: here we began to realize the labor and trouble which were in store for us. The evening was one of the most unpleasant I had ever experienced. The rain poured down in torrents, as if the clouds had been rent asunder by the heavy thunder, which seemed to increase as the vivid lightning flashed incessantly around us. The whole sky was at moments wrapt in one dark canopy, while at others it presented one glare of lightning. Having reached the base of the hill, we found it necessary, from the weak condition of our mules, to attach twelve of them to one wagon to pull up about 1,200 pounds, and with the assistance of all hands at the wheels, we succeeded, after two hours' work, in reaching the top of the hill, in the midst of the storm, and continued our march, which brought us to a small stream, about four miles from the garrison, after sundown, where we made our encampment for the night.

It continued to rain very hard; and, as wood was scarce, and we had no means of kindling a fire, the party placed themselves under cover as soon as possible, without having eaten anything since morning. As for myself, I was completely overcome by fatigue, and much harassed at the gloomy prospects before me. Every stitch of clothing I had on was thoroughly drenched, and in this condition I was taken with a fever, which lasted several hours; but during the night it passed off, and in the morning I was much gratified to find myself able to resume my journey.

My outfit was as indifferent a one as ever left for any station, much less the Rocky mountains. The mules were poor, unbroken, and by no means calculated for such a march as we had to perform. The drivers were not only stupid, but totally ignorant of their duty, as they had never been employed in this capacity before, and seemed to have no other object in view than to reach the gold region with the least possible expense or trouble to themselves; they were, however, the best among those left at Leavenworth by the regiment, and I had no alternative but to take them. They had been hired at \$15 per month, without the least knowledge of the duty of a teamster, or any capacity to learn. I had men of this de-

scription with me in Mexico, who generally made out to destroy more public property from gross ignorance than would have hired double the number of good teamsters; but, from the system that is now observed, it will always be difficult to remedy the evil. It is a laborious life, and the sum of \$15 per month will never bring into the service good and efficient men who are calculated for such duty; and it is to be regretted that some plan cannot be adopted to supply the department with experienced drivers, who are so indispensably necessary upon long marches like the present one. I have been in favor for some time of enlisting men who are particularly qualified for this duty; and I regret that the plan you have so long recommended has not yet been adopted.

May 21.—The teamsters commenced their labor at daybreak, but the unbroken condition of the mules was such that the greater part of the morning was consumed in bridling and harnessing them, and we were not prepared until half past eight to commence our journey.

Whoever has witnessed the scene of preparing unbroken Mexican mules for the road, will not be at a loss to imagine the position of one with men who had hardly ever taken a whip in their hands, and now in charge of such teams. This, in a word, was our condition; and I had witnessed enough yesterday to warn me of what might be realized before arriving at Oregon, or even Fort Kearny, and the display this morning had not tended in the least to lessen my conviction. This was the beginning of a long and hazardous journey, filled with difficulty and labor. We were soon to find ourselves on a desert waste, cut off from all resources except those we might have with us, and it certainly was no time or place for experimenting.

I sent back this morning for an entire outfit; but the post teams, being considered by far too valuable to be spared for such service, were withheld, probably because it was thought I was on the same footing with the balance of the outfit of the regiment. If so, I could have no cause to complain. Be this as it may, to this subject I shall again take occasion to refer before completing this journal.

This day may be noted as the commencement of our march. The morning, although cloudy, gave every indication of a pleasant day, which we stood much in need of, after the cold rain of yesterday evening, and last night. It still continued cold to day, which greatly facilitated our travelling.

The road lay over a prairie, which was skirted with timber, and at 5 o'clock p. m. we came to a steep hill, somewhat difficult to descend, but succeeded in reaching the bottom without much trouble; for while some attended to the mules, others held on to ropes attached to the wagons, which brought them to the base without any accident. The broken tongues, hounds, and other parts of wagons showed plainly the trouble which the command had met with at this place. As the evening was drawing to a close, we made our encampment for the night on the banks of a small stream which was running at the base of the hill. Here we found plenty of good water and wood for our use, and fine grazing for the animals, which they stood greatly in need of. We had not more time before sunset than would suffice for the arranging of our meals and making a few alterations which were required before leaving in the

morning. Our tents were scarcely pitched, and all things properly prepared for the night, before it began to hail, and continued until nearly sundown, when it cleared off and became very cold, making a fire quite comfortable.

May 22.—The morning was clear, and we left our encampment at 5 o'clock. The road passed over a rolling prairie, and across several small streams, which were well wooded, as is generally the case in this vicinity. Towards the close of the day, the country became very broken, as we were still near the great Missouri valley; but our trail began to diverge a little, which was soon to carry us from it, where the beauties of woodland scenery were to give place to an endless prairie country, which strikes one as being very beautiful at first sight, but becomes tiresome beyond any description after the novelty has worn off. It could hardly be expected to be otherwise, when you see nothing from day to day but the broad canopy of heaven above, and the greensward below.

We arrived at Wolf creek at half past 5 o'clock this evening, having made a march of twenty-two miles to-day. I had thrown away nearly all of the two loads when starting yesterday morning, so that we had but little more than our trunks to transport, which could be very easily packed.

The country was not the least interesting in this day's journey. It was much more broken than yesterday, which made it very fatiguing to teams that were entirely unaccustomed to travelling. The weather had moderated through the day, which made the evening delightful. It was the first pleasant weather we had experienced since the 19th instant, and it appeared to give new life to the whole party: we certainly stood greatly in need of a change. It was also very favorable for our mules, which had suffered much from the cold rains since starting. The thermometer at 6 o'clock p. m. ranged at 70°, and we had every prospect of a fine day to-morrow.

Since leaving Fort Leavenworth we had met with no one, and our two days' march was very tiresome and monotonous. This evening our camp was visited by a Sac Indian, who was dressed, as is customary among that tribe, with a red blanket and head ornamented with feathers.

He soon presented me a paper which had been given to him by the sub agent, the purport of which was to request emigrants passing this way to make these Indians a small present for the use of their wood, which they had complained of having been destroyed, by the emigrants. He also made quite a talk about the grass which the animals consumed, and appeared to be fully impressed with the idea that they were entitled to some compensation for it.

We gave him something to eat, and sent him off very soon after, evidently disappointed and much displeased at not receiving money, for he had doubtless made up his mind on having a fine frolic on his next visit to St. Joseph's and Western, places which are frequently visited by them for that purpose, much to the annoyance of the inhabitants.

It is surprising why those employed with Indian tribes are disposed to humor them, as is often the case, with erroneous impressions. Here, for instance, was an Indian furnished with a paper to receive a tribute from all who passed; and more than probable, if he should become displeased

by not receiving some compensation, the tribe were likely to annoy every one by stealing horses, or in some other way. If these people really deserved compensation for the wood used, which was of itself too absurd to think of for a moment, it was a proper subject to lay before the Indian department; but, to get rid of them, these papers are furnished, which can have no other tendency than to annoy travellers and endanger their property.

May 23.—We commenced making preparations at half past three o'clock this morning, and started as soon as it was light enough to see the road. It was a cold, misty morning, and the thermometer was as low as 48° at sunrise, making a difference of 22° during the night. The country began to rise, and, with the exception of the distant wood on the borders of several small streams, and the valley of the Missouri, nothing could be seen but a high rolling prairie.

We had been travelling for the last three days on a trail made partly by the Oregon expedition, but had not proceeded very far this morning before a new scene broke suddenly upon our view. We here came into a road as large as any public highway in the United States, leading from St. Joseph's and Western. Large trains were coming in from all points of the Missouri river, on trails intersecting this great highway, which was to lead them, after endless toil and much suffering, to the gold region. All these trails followed ridges, which placed the wagons frequently in such positions that they seemed to be crossing the prairie in every direction, and, as their white covers were well trimmed, they looked at a distance not unlike vessels on the wide ocean steering for different parts of the globe. For the first time we passed one or two wagons to-day that had broken down, and also several persons returning, who had already lost their cattle, which they were ready, of course, to attribute to the Indians, and not to their own neglect. The truth was, they had become discouraged, and were willing to make any excuse to return rather than to continue the journey.

In this day's march I overtook Captain Granger, of the rifle regiment, whom I passed, and about six o'clock in the evening made my encampment on the prairie, where I found a small stream, which was entirely destitute of wood, there being but three solitary trees to be seen. The day was very fine, and the distance travelled was about twenty-five miles. At this encampment our horses found an abundance of grass. The evening was very pleasant, and the thermometer, at six o'clock p. m., stood at 62° . I learned to-day that the command was not over seventy miles in advance of me. They had met with much difficulty with many of their teams since leaving Fort Leavenworth, which had given us the opportunity of gaining already considerably on them.

May 24.—The bugle sounded at three o'clock this morning, when all hands were immediately up and soon prepared for breakfast. At half-past four o'clock we were ready to commence our march, the thermometer standing at 60° . The day was extremely fine for travelling, and we arrived on the Nemehaw at eleven o'clock a. m., where we made a halt for an hour to rest the teams. This is a pretty little stream, about sixty feet wide, and is a tributary to the Missouri. Wood is to be found in abundance on its banks; consisting of oak, hickory, walnut, ash, elm,

and cottonwood. I judged the soil to be good from its dark appearance, and no doubt would be productive. We continued our journey some distance further, leaving many emigrants at this stream and the several water holes in the vicinity of the road, as the cholera had prevented many of them from travelling.

One or two families, whom I overtook at the Nemehaw, passed us at Fort Kearny, and by good management were able to keep with the command, which generally travelled faster than the body of emigrants.

The cholera now began to make its appearance along this route, and the number who had died with it was sufficient evidence that the emigrants were suffering greatly from its effects. They were truly to be pitied, as no aid in any way could be afforded them; on the contrary, they were often compelled to travel when it was almost death to them to be moved.

The country along here is high, and in fair weather very dry, and nothing to aggravate the disease, as the atmosphere was as pure as the mountain air, and not the least decomposition of vegetable matter to engender it. Still the cholera continued to prevail among the emigrating parties, and, with every care they resorted to, it remained among them until they crossed the North Platte, in the month of July, and in many instances raged with such violence as to carry off nearly whole parties.

I arrived this evening on a small stream, such as are frequently found among the hills near the Missouri. There were many emigrating families here, who were necessarily compelled to stop in consequence of the prevailing epidemic. The evening was cloudy, and it began to rain very hard soon after our tents were pitched. The rainy season had now commenced, which we would be compelled to endure until our daily marches carried us to a section of country where rain seldom falls during the summer, which is generally the case with that section of country found between the North Platte, the Sweet Water, and Snake river. On the prairie between Forts Leavenworth and Kearny, it commences as early as May, and seldom stops until the latter part of June.

May 25.—The rain fell in torrents through the night, and was accompanied by sharp lightning and heavy thunder. The bottoms of our tents were partly under water, particularly those that were not protected by an embankment, which should always be made, whether the evening is clear or cloudy, as little calculation is to be made upon the weather during the rainy season in this country.

When the call was sounded at four o'clock this morning, one of my teamsters was absent. This man, finding that he knew nothing of his duty, and having exhausted the patience of all who endeavored to teach him, thought it the safest plan to relinquish his situation as teamster to the Oregon expedition, and had run off during the night, leaving us, the wagons, and but one teamster, to get on the most convenient way that could be devised by the party. The corporal of the escort scoured the country, without being successful in finding him. We afterwards learned that he had returned to Fort Leavenworth, satisfied, no doubt, that he was not destined to reach the gold region in the capacity of teamster, and would wait for a more favorable opportunity.

The morning was very unpleasant. The thermometer at five o'clock

stood at 52°; it, however, cleared off towards the middle of the day, after a drizzling rain all the morning, and the remainder of the day was extremely pleasant.

During the day I met two wagons returning to the Missouri. These people were already discouraged, and thought it more advisable to return than to attempt a journey of two thousand miles, and run the risk of never reaching their place of destination. Many of them had started very unprepared, while others were entirely unacquainted with a prairie life, and little calculated to accomplish a journey fraught with so many obstacles as this certainly is.

This day's march carried us over a high prairie, very much like that we had already travelled over, and brought us within five miles of a stream called the Big Vermilion.

May 26.—It was cold and rainy this morning, which prevented us from leaving as early as usual. We left our encampment at half-past seven, and soon came to the banks of the Vermilion, a stream which is about one hundred feet wide, quite rapid, and barely fordable at this time. From this point the road commenced to ascend gradually; the ground was firm, and the wagons were able to move rapidly through the day. The country was not so rolling as heretofore, but presented rather a series of plains, rising one above another.

This day's march brought me to a stream, having on its banks cottonwood and scrub oak in small quantities. The soil bore much the appearance of that on the streams we had already passed.

From the great exposure which the party had been subjected to, a teamster was taken with the pleurisy, while one of the escort was seized with the cholera. Having no medical aid along, our situation was certainly a very unpleasant one. We, however, administered to them such medicine as we had with us, and rendered them all the assistance in our power; but, being compelled to continue our march, it was impossible to make them the least comfortable.

It would be useless to attempt to enumerate the deaths that occurred among the emigrants. The graves along the road too plainly told us that the cholera was prevailing to an alarming extent. At this point we were one hundred and thirty-eight miles from Fort Leavenworth, and one hundred and seventy-two miles from Fort Kearny, entirely cut off from all assistance or the least possible means of getting any relief. It was out of the question to lie by; for, being in the rear, we were compelled to move rapidly on to overtake the command. It was a serious subject to think of, and I know of no danger that I would not sooner be exposed to than again suffer the uneasiness of mind which I experienced at this time; for we had not only full proof of the prevalence of this dreadful scourge along the road, but were actually carrying it with us in our wagons.

If I were to enumerate all the sufferings of the emigrants, and enter into a minute description of our critical situation, it would take more time and space than would be proper for me to devote to this subject; but I feel that it is necessary to touch upon it, so as to give the department some idea of the peculiar position in which we were placed, and the great risk every one ran who travelled this route; for when we arose in the morning it was a question among us as to who might fall a victim to it before another sun.

We met at our encampment this evening two men who were returning to their homes in Tennessee, having heard of the death of some of their relatives, which required them to retrace their steps. This presented a favorable opportunity to us to send letters back to our friends, who, hearing of the existence of the cholera, along our route, would doubtless feel great solicitude for us, and be much relieved on hearing of our safety thus far.

The distance passed over to-day was about thirty miles: having a good road, and travelling quite late in the evening enabled us to make a very long march; but it was somewhat necessary, as water to-day was scarce upon the route. I hired an emigrant last evening to drive one of my wagons as far as Fort Kearny, in place of the teamster who had so unceremoniously deserted us, and I found him a very efficient man, who earned well his dollar a day, which I was compelled to give him while in my employment.

May 27.—The bugle this morning called us up at half-past four o'clock, and, after the usual preparations for breakfast having been made, we were ready at half-past five to resume our march. The morning was clear and bracing. The thermometer, at six a. m., was as low as 54° .

The road lay over a flat prairie all day, which was very muddy and difficult to pass in bad weather. We overtook at least one hundred wagons, and met one man and his family returning to the States. Many of these people were from Illinois, who had crossed the Mississippi at Palmyra and struck the Missouri at St. Joseph's and Western. Those destined for Santa Fe generally stopped at Independence and Liberty, which are below the mouth of the Kansas river.

We crossed to-day two streams, one about ninety feet wide, that in rainy weather would be difficult to pass, but at this time the water was lying in holes and very indifferent to drink.

Our teams were kept back by the number of trains we overtook to-day, and did not reach our encamping ground on the Big Sandy until nearly the close of the evening. We found a large number of emigrants on this stream, who were to be seen in every direction, above and below the crossing. A great number were also passed at the several water holes along the road, and, it being the Sabbath, many of them had stopped to rest—some, no doubt, from religious scruples, while others believed it indispensably necessary to lie by one day in seven for the purpose of resting their animals. It is a very good plan, and should be resorted to whenever time will permit.

Towards the close of the evening very little was heard but the cracking of whips, and a general talking among the parties coming in as to where their encampments were to be made, and whether grass and water could be found contiguous to each other; for they relished but little the idea of driving their cattle any distance from camp, where they would be compelled to guard them during the night.

Dr. Browne, of St. Louis, was kind enough to visit the sick this evening and prescribe for them, but pronounced one of their cases to be a very hopeless one; he rendered them every assistance in his power, and visited them again in the morning before our departure.

Since leaving Fort Leavenworth I had seen no game of any importance,

although this is a region where deer and buffalo are generally found in the greatest abundance. At this season herds of buffalo are always seen on the Little Blue, a stream which we were fast approaching; but the immense emigration that had already gone on would no doubt drive them from the vicinity of the road and cause them to become very wild. The few deer I had met with thus far were extremely shy, and showed the effect the emigration had produced already in passing this spring.

The distance travelled to-day was about twenty miles, and the grazing at our encampment was very good, as I had generally found it since leaving Fort Leavenworth.

May 28.—Wood being very scarce on the Big Sandy, we did not succeed in getting our breakfast before a late hour, although it consisted, as usual, of nothing more than fried ham, stale bread, and bad coffee: it was, therefore, after six o'clock before we commenced our march.

The land on the Big Sandy is of a light soil and poor. The wood on this stream is very scarce, consisting principally of cottonwood.

The road to-day led over a prairie somewhat level, though much better than that of yesterday. It brought us on the Little Blue, where the road passes along its valley for at least forty miles.

Among the multiplicity of troubles which we had met with since leaving, one of the wagons to-day broke down, and was abandoned, in consequence of having neither timber to substitute nor mechanics to repair it. The sick, together with a part of the escort, were left with it. I was not with the wagon when the accident occurred, and this arrangement was made by a person in charge of the teams. It greatly annoyed me, and, although near sundown when they came into camp, I directed them to unload and return for the party they had left behind. This was accomplished, and they returned to camp about twelve o'clock at night.

By this time, the man who had the cholera became entirely deranged, and required the strength of one person to keep him in the wagon. His sufferings were very great, and his cries most distressing, particularly as it was not in our power to render him any assistance or relief. The condition of the sick, as well as the general indisposition among the party, rendered it necessary to reach Fort Kearny as soon as possible, or it would become necessary to lie by. I was now reduced to one wagon to transport the sick, my own outfit, and that of the party, as well as the luggage of the escort. I determined, therefore, to leave all the stores that were not absolutely necessary for us for the next two days, hoping by that time to arrive at the fort or overtake the command.

May 29.—The morning was clear and pleasant, after a rainy night. I did not leave the camp until seven o'clock, for the loss of one of our wagons had greatly deranged our movements, and compelled me to make entirely new arrangements. Beds, boxes, and all bulky articles were left behind, and, having a heavy load, I attached eight mules to it, with two drivers, who succeeded in getting them along much better than any one anticipated. The remainder of the animals were driven by the escort, and gave us much trouble; being wild, they greatly preferred the prairie to being driven quietly along.

The road here passed along the valley of the Blue, except in one bend, where it crosses a high level prairie of about six miles wide, which

I found very muddy, and in wet weather is extremely difficult to travel on. This is generally the case on all parts of the road where the prairie is not sufficiently rolling to carry off the water. The ground in this state becomes saturated, making the sward easy to cut through, by which the wheels sink and cause the hauling to be extremely fatiguing.

Wagons, as usual, were to be seen at every bend of the road, and along the banks of the river. Having made a late start this morning, we were necessarily thrown behind large trains that had started before us, and we were compelled to travel much slower than usual. I therefore found it a better plan to make early starts in the morning, as emigrants seldom move before sunrise, and, by reaching some spot in the evening where there were none, it would enable us to keep clear of them during the day.

It is not frequently the case that you meet on the prairie mountaineers returning with their peltry; but to-day I met with a Frenchman who left Fort Laramie with two wagons loaded with buffalo skins, and had been twenty-three days from that place. Although he gave me the cheering news that the regiment was only one day's march in advance—which was the first correct information I had received since leaving Fort Leavenworth—he was the harbinger of unpleasant information, relative to the country over which he had travelled for the last three weeks. He stated that there had been much rain between Forts Laramie and Kearny this spring, which had swollen the Platte river, and made the trail very heavy; and there was every probability that it would be too high to cross on our arrival. From his statement, several thousand wagons were already ahead of us. Many of them had passed Fort Laramie, and at all the most convenient places for stopping, the grass had been pretty much consumed. The Platte valley, which in dry weather is generally very fine to travel over, had been so cut up by the immense emigration that he found much trouble in travelling, and it was highly probable that we would find it but little better—the only hope was that it would cease raining, and in that case, a few clear days would make it passable. It was extremely gratifying, however, to know that we were so near the command, as it would enable me, should I overtake them, to get clear of the sick, who in my present condition had become a great burden.

We stopped to-day at two o'clock to graze our animals, which had become very tired and were near giving out. This was not very surprising, when we reflected upon their condition when we started, and the distance they had travelled. I would recommend by all means to small parties to stop in the middle of the day, and particularly those who move with pack-mules, as the loads are easily adjusted, and but little time lost; by it your animals become greatly relieved: but with large trains there is much trouble and but very little advantage, unless you are driving oxen, which never require more than a few minutes to turn loose, and are equally as easy to prepare for the road again.

I here began to discover that the grazing had changed very materially on the Blue, which was caused not only by the number of cattle that had been grazing on it for some time, but the cold weather had considerably impeded its growth, and confirmed me in the opinion that the first of May is too soon to leave the Missouri, unless you contemplate a rest after

arriving on the borders of the Platte; in that case, if you have the means to carry along a small quantity of grain, which can always be done, instead of the many surplus articles that often encumber your loads to but very little purpose, the earlier you start the better, as a rest of a week or ten days has a great tendency to prepare your animals for a long journey, which they would not have by being kept constantly on the march.

The day was pleasant; but our late start, and the difficulty of passing the trains along the route, brought us into camp after sundown, and we did not accomplish more than twenty-four miles during the day. The thermometer this morning at six o'clock stood at 54° ; and this evening, at the same hour, it was as high as 76° .

Since striking the Blue, I have not met with any buffalo, as the passing of the emigrants this spring has driven them entirely off. Not more than a half a dozen have been seen within the last ten days. Deer are equally as scarce, and you seldom meet with either without travelling some distance on the prairie back from the river.

May 30.—We left our encampment at five o'clock this morning, and continued up the Blue about four miles, where the road turns off across the prairie to the Platte river. The night was threatening, and it commenced raining early in the morning, and continued until ten o'clock, when it cleared off, and the remainder of the day was more pleasant. We pursued our journey through the day until we came in sight of the hills which form a small range that divides the prairie from the valley of the Platte, where I encamped for the night.

My encampment was upon the borders of a pond of water, or what is more generally called a water-hole, which is often found on the prairies. It was half-past seven o'clock before my wagons arrived, and some time after sundown before we made ourselves comfortable for the night. The evening being damp and windy, the cold was felt very sensibly. The thermometer in the morning stood at 62° , and at half-past seven o'clock this evening it was at 56° . We met here another family returning to the Missouri river, already surfeited with gold-hunting, which had cost them much labor, and deprived them of the many comforts of life. Having staked out our animals, and taken a scanty meal, we retired to rest, being very much gratified with the pleasing reflection that the march in the morning would bring us to Fort Kearny.

The distance of our journey to-day was twenty-one miles, and we passed a stream, about eight miles before we reached our encampment, that was extremely boggy and difficult to get through. The prairie from the Blue, over which we had travelled to-day, is very high and level; but the road being filled with wagons, we had much trouble and detention in passing them.

May 31.—We left our encampment at 5 o'clock this morning for the fort, the distance being about ten miles, over a sandy road, and reached it at ten o'clock, simultaneously with the rifle regiment.

It rained during the day, which made it very cold for the season.

The regiment made their encampment about two miles above the fort, intending to remain until the whole train was examined, reorganized, and put in a condition to renew the march.

Fort Kearny is situated on the right bank of the Platte river, at the head of Grand island. It is garrisoned by a troop of the 1st regiment of dragoons, and a company of the 6th infantry. This post was located here as a substitute for the one formerly at the mouth of the Platte, being more on the direct route from Fort Leavenworth to Fort Laramie, as well as the small towns on the Missouri river from whence emigrants generally take their departure. It is very well located to keep in check the Pawnee and Sioux nations, and is also a great protection to the emigrants who travel this route to California and Oregon.

The small pox, as well as other diseases, has greatly diminished the Pawnee nation. A few years back they were looked upon as a large and powerful tribe, but they have dwindled away so rapidly of late years that they are no longer feared by the neighboring tribes: the Sioux are fast encroaching on them, and frequently make war on them successfully.

The site for this post is not a very pleasing one, having nothing to recommend it in the way of beauty. The valley of the Platte is entirely destitute of wood in this vicinity, besides being low. It has the muddy Platte river on one side, which gives the Missouri much of its color, while a chain of unprepossessing sand hills are seen on this side, which forms a dividing ridge between the valley and the country back, and is the commencement of the first highland that ranges along the river, which gradually rises until it becomes a bluff of considerable height.

What few buildings were inhabited, I observed, were made of sward, cut in the form of adobes. The hospital was the only building which was being erected. These buildings were under the direction of an officer of the engineer corps, who, for the want of proper materials, was unable to progress very rapidly with them.

Wood can be obtained on Grand island, which is about thirty miles in length, and about five miles wide. Lumber for building is extremely scarce, as cottonwood is the principal timber found on the island, and is considered very inferior for building.

The stream is not very wide between the mainland and island, and is seldom more than five feet deep, the bottom of which is very uneven and filled with quicksand, like other parts of this stream.

In the partial cultivation of the soil, it has been discovered not to be productive. Gardens have been started, but to little purpose, except that the experiment had partly convinced them that it was only labor lost. Still I am of the opinion, when time has been allowed to find out its qualities better, that not only vegetables may be raised in abundance, but grain of every description.

Grazing for our animals in the vicinity of this post is extremely good, but I apprehend that grass for hay is very difficult to procure in the fall. The emigrants had not been permitted to encamp immediately around the fort, which gave our animals a fine field to range over during the time they remained; and they stood greatly in need of it.

This day's journey had not only brought me to the regiment; which I had been pursuing with all possible speed for ten days, but also to Fort Kearny, a distance of three hundred and ten miles from Fort Leavenworth,

and I now considered that I had fairly reached the point where my duties were to commence.

The march from Fort Leavenworth was a very severe one. The rainy season having set in, it rained nearly every day from the commencement of our journey to our arrival at Fort Kearny. If we were fortunate enough to be blessed with one bright morning, we were certain to have a shower either in the evening or during the night. Among persons totally ignorant of a life like this, whose avocations have unfitted them for such labor as is incidental to a prairie life, the experience which they had already gained by the journey thus far would teach them at least that it would require a great deal of philosophy and patience to surmount the obstacles and endure the hardships that were still to be met with before reaching Oregon.

The entire route from Fort Leavenworth to Fort Kearny passes over an undulating prairie, which is of a dark vegetable mould, and in many parts might be productive if cultivated, particularly on the large streams. In rainy weather the whole route becomes extremely muddy and very difficult to travel over, but in this respect it does not differ from any of the prairies of the West. When the season is dry the ground becomes very firm, and, as there are no hills to impede travelling, nothing can prevent trains of any size from moving over it with much ease and great rapidity. The few obstructions met with are found in crossing some of the streams, which could be removed with very little labor; and it is in the power of the government to make it one of the best public highways in the western country.

There are many small streams crossed on this route, such as Wolf creek, the Big and Little Nemehaw, the Vermilion, Big Sandy, and the Little Blue, besides many others, which may be looked upon as drains to the prairie. There are water holes off from the road, which may be known by mts or small groves of timber, which, added to the streams, afford an abundance of water.

This is a part of that great prairie country which ranges from the Red river of the North to the Rio Grande, and can be traversed throughout the whole distance without the least difficulty. As far back as 1828, cattle were driven from Independence, Missouri, to the St. Peter's river, which empties into the Mississippi river a little below latitude 45°; and it was not unfrequent for sheep to be carried as far as the settlement on Red river in the British territory. From Lake Qui Parle to the Yellow Stone, it was commonly the route taken by the traders to carry their goods, instead of ascending the Missouri river; and there is nothing to prevent this whole range from being travelled as far as the Rio Grande, except the danger of encountering hostile Indians, who are frequently met with between Independence and Santa Fe, and particularly the Comanche tribe, who are constantly ranging between the Arkansas and the southern boundary of Texas.

Game of every description is found on this prairie; buffalo, elk, and antelope are seen in great numbers; but this year very few have been met with, owing, doubtless, to the great emigration passing this way, which has driven them further south.

While at Fort Kearny, I had occasion to converse frequently with Colonel Bonneville, the commander of the post, who had been many years ago among the Indians in the Rocky Mountains, and had obtained while there much valuable information, which he freely imparted to me; and I found it, in more than one instance, of great importance, before arriving on the Columbia river.

CHAPTER II.

March from Fort Kearny to Fort Laramie—a distance of 273 miles.

June 1.—The whole outfit was carefully examined to-day, that it might be put in as good a condition as our time and means would permit; and it required but little experience to see that the condition of the mules was not such as to justify the command leaving for the Columbia river with any certainty of arriving there without accident.

The mules were principally those brought from the Rio Grande in the fall of 1848, and were wintered in the vicinity of Fort Leavenworth by contract. They had been badly taken care of, and, when the spring commenced, there was not sufficient time to put them in a proper condition for the march. Many of them were partly broken down by former hard service; while others were wild, and it seemed almost impossible to break them to harness. They had just completed a journey of three hundred and ten miles, in very unpleasant weather. The citizen and soldier teamsters were entirely incapable of driving, with the exception of a few of the former, who had been in Mexico. With all this combined, it had greatly impaired the condition of many of them.

The responsibility which was about to devolve on me, to transport the troops safely to the Columbia river, whether much or little was expected by the department, determined me not to take the charge on myself without letting it know the condition, at least, in which I found things.

Although I did not consider that any one was to blame since the march commenced, I preferred calling for a board of survey, and it was convened, in compliance with the letter here annexed. The board inspected the animals, and passed their opinion upon them, and, out of the whole number, condemned one-third, as I was unofficially informed. Although this was their opinion, I never was able to obtain a copy of the report, as they committed an informality, which caused the proceedings to be annulled.

This was the aspect of affairs when I took charge of the department, and relieved the officer who had accompanied the troops to Fort Kearny.

June 2.—This day was passed in making out papers and arranging the train. The command moved about four miles above, to change their encampment, get better grazing, and be nearer to the water.

An order had been issued by Colonel Loring separating the command into three divisions of two companies each, which were to march at an interval of five miles between the first and third divisions, and encamp in the same order, till otherwise changed. This necessarily separated

me from the greater portion of the command, and confined me for a time to a division, changing from one to the other as my services were most required.

Having only Lieutenant Frost with me as acting assistant quartermaster, who was in charge of the regimental train, and similarly situated, I was compelled to trust much to the agents, which greatly increased my responsibilities, as it was expected that I would not only see that the property was taken care of, but the troops properly transported.

This plan was decided on before I took charge of the department, and no views of mine, founded on former experience, could alter it. If it had been absolutely necessary to cause the divisions to march several days apart, from the great scarcity of grass, the plan would have been a very good one; but this was not the case, and increased the *commanders*, when I found *one* amply sufficient. While I saw no good reason for it, and having no officer of the department to receipt for the property in the several divisions and superintend their movements, my position became a very unenviable one, increasing my labors threefold, both bodily and mentally.

June 3.—It became necessary before leaving Fort Kearny, to increase the subsistence stores, which called for additional means of transportation. I was, therefore, compelled to resort to ox teams, being the only transportation that could be obtained at the post—and we were very fortunate even to get this. I placed them under charge of a wagon-master, to proceed directly on to Fort Laramie in company with the emigrants, without being governed by the movements of the expedition, as we were required to make short marches in consequence of the delay of the beef-contractor, and it would enable them to get considerably the start of us.

June 4.—We left this morning at seven o'clock, and arrived at Plum creek early in the evening, where the third division made its encampment for the night. This is a very small stream, which rises among the bluffs and empties into the Platte a few miles below where the road crossed it. My tent was pitched on the banks of the Platte for the first time this evening, which was swollen and extremely muddy from the heavy rains that had recently fallen, which gave us much apprehension that the information recently received would prove true; for, in its present stage, it was very doubtful if we were not detained on reaching the crossing of the South Fork.

When we look at the width of this river, its muddy water and rapid current, we are greatly reminded of the striking resemblance it bears to the Missouri, of which it is one of its principal tributaries; but when we reflect that there is only a short portion of the year that it is not too high to prevent you from fording it, we are impressed with its total uselessness and insignificance when compared with the smallest navigable river in our country. Although it is large, it is but a drain for the melting snows from the mountains, and can only be remarkable for possessing more sand bars, less depth of water, and more islands half covered with useless timber, than any other stream of its size in the country. It is not navigable, nor can it be made so, and, in a commercial point of view, has very little to recommend it.

This river is formed by the North and South Platte, which, after pass-

ing through the western prairies from the mountains several hundred miles, come together eighty miles above Fort Kearny. The South Fork we were soon to cross, when our route would lie along the North Fork for nearly four hundred miles, until it turns to the south, where it rises in the mountains, west of the Medicine Bow range, at least 24° from where the Oregon and California trails leave it.

The valley of the Platte being as destitute of a tree as the adjacent prairie, or that which we had passed over, we found wood very difficult to procure at our encampment this evening, and what little was used by the troops they brought on their shoulders from an island, which they reached by wading to it.

The mode adopted for the arrangement of the three camps was the same. Each division or squadron occupied two sides of a rectangle, the tents pitched sufficiently far apart to make room on the other two sides for the supply train. This generally made sufficient space to contain all the horses and mules. The wagons are driven sufficiently close to allow the tongue of one to reach the hind wheels of the other, which is called karalling a train, and makes a very formidable defence either against foot or mounted troops. When it is desirable to leave the camp open, the train is generally parked in several lines, making them as compact as the nature of the ground will admit.

At the end of a day's journey the horses and mules of the division are staked out until sundown, and then brought into the karall, and there kept until the morning. Each animal is made fast to a lasso about twenty feet long, which is attached to an iron pin of about fifteen inches in length, which has at the head a ring that works on a pivot, and allows the horse to move around without disturbing the pin. About four o'clock in the morning they are all taken out, and allowed to remain until five, when they are prepared for the march. All being ready, the squadron moves off, followed by the baggage train, and next the supply train, which has an agent whose duty it was made to examine his train throughout the day, making such alterations as might be deemed necessary to facilitate its movement. The train is divided into sections of a certain number of wagons, placed under a wagon-master, who is responsible to the agent for the good order of that particular part of the train; and I generally found that twenty wagons were as many as one man could properly superintend, particularly when the teamsters were indifferent, and the roads very bad; for on this march it was not unfrequently the case to require his services at several points at the same time, and, in that case, I never found that I had too many in my employment. And I will take this occasion to remark that the number employed did not render my own situation a sinecure; for, being always at the head of my own train, I often *found myself*, as well as my clerks, with *our shoulders* literally at the *wheel*, working as hard, as it is well known, as any laborer along. I found it necessary to do so to enable us to accomplish our march. This was the course adopted and continued through the route. As the baggage train was necessarily required to be in camp early, it was under the direction of the acting assistant quartermaster, who was responsible for its order, as the property was under his charge. The supply train, not being re-

quired to reach camp so early, generally moved less rapidly, and in consequence came in less fatigued and in much better order.

June 5.—Large trains could be seen this morning wending their way along on both sides of the Platte. The river here is nearly three miles wide, interspersed with islands, some of which are thinly covered with very small cottonwood and willow; but in many instances they are entirely bare. It rained a little before we left camp, which made it muddy, but, as it remained cloudy, it was pleasant for traveling, and rather facilitated our movements.

Our march was only eleven miles to-day, as it has been but little more than changing encamping-grounds since leaving Fort Kearny, it being necessary to wait for the contractor, who was hourly expected, before we could proceed. This gave the mules and horses an opportunity of recovering from their march from Fort Leavenworth.

Having arrived in camp early to-day, I overhauled the wagons which contained the lumber intended for such repairs as we might require on the route, and found that we had but very little along with us, there being but four pair of hounds and eleven tongues, which was a scanty allowance for the repairs of one hundred and sixty wagons, that were to pass over rough roads for two thousand miles. I had no desire to send back for timber, which had been done previous to my arrival, some fifty miles—rather preferring to trust to a good trail and the improvement of teams and teamsters.

June 6.—It rained very hard last night, and continued this morning. The dark clouds, accompanied with wind, were fast covering the heavens. The lightning was very severe, and it rained and hailed very hard. We left our encampment at half-past nine o'clock, and travelled about ten miles to-day. The march being short, nothing occurred worthy of note. The evening cleared off beautifully after the rain, and the mules bid fair to be well prepared by morning for a good day's journey, as they were up to their eyes in grass.

While quietly wending our way along the Platte to-day, I saw for the first time an antelope, and was somewhat disappointed in its appearance; there was not that beauty in its form that I expected to find, from the descriptions so often given "of the swift-footed antelope," when compared with the deer; and I consider it by no means as handsome or as delicately proportioned. At a distance, however, it is much the same. The head of this animal is very much like that of a sheep; the body appears shorter than the deer, with hair much coarser and longer. It stands very erect, and leaps with much quickness, gathering its feet apparently at the same time immediately under it. Its curiosity exceeds any animal I have ever seen, except the mountain goat. When it first saw me it approached almost within gunshot, when, stopping for a few minutes, it ran off for a short distance, and turned again, apparently to satisfy its curiosity. It then ran parallel to the road, getting sometimes ahead, and then returning; if I stopped suddenly, or there was anything seen to attract its attention still more, it would run directly towards me until its curiosity was fully satisfied, and then bound off with great rapidity over the prairie until out of sight. It is much lighter in color than the deer,

particularly on its sides, breast, and hind-quarters; this, with a black stripe which it has about the eyes, gives it a striking appearance, though it does not add much to its beauty.

Whether from the alarm of the cholera or a distaste for soldiering, I am unable to say, but desertion at this time was rapidly increasing. Four men ran off last night, taking a complete outfit with them. This was not very unexpected to us, when we considered the material of which the regiment was composed, who merely enlisted, it is well known, for the purpose of getting comfortably transported to California at the expense of the government, and not from any partiality for the profession of a soldier.

June 7.—The command got under way quarter before seven o'clock this morning. The rain of last evening made it very muddy, and the hauling along the valley very heavy. The day was quite warm; the thermometer, at six a. m., stood at 52° , and at twelve m. it ranged as high as 80° .

To-day buffalo were seen for the first time, which created no little excitement. We had been hoping for several days to be gratified with a sight of them, for the road was entirely destitute of interest, and we were much pleased on hearing the news that game was so near us. We were now getting into a section of country where it is generally found abundantly in the spring, and looked forward to something in the way of sport to divert us from our monotonous life for a time; for a journey over a prairie affords no pleasure except that of hunting, and, when that cannot be found, any other scenery is by far more preferable.

After arriving in camp, which we reached early in the day, having travelled but twelve miles, Mr. Wilcox and myself ascended the bluffs, and continued for a short distance back into the country, where the prairie was very much broken, forming deep ravines, that appeared to continue for a long distance, and rising at the same time quite high. The ground was so much broken as to make it difficult to travel on horseback on these ridges. Nothing could be seen but large buffalo trails; the deep ravines were much trodden and torn up, forming what are generally called buffalo wallows, which are resorted to by them when these places are partially filled with water. We expected to have been successful in finding game beyond the bluffs, but were compelled to return after sundown without seeing one buffalo. A large hawk was the only thing killed, which measured four feet ten inches from the tip of one wing to the other, and was quite remarkable in other respects.

To-day the contractor arrived, who had been looked for with so much anxiety, as it would enable us in a few days to increase our daily marches. The grazing at this encampment was much the same as had been met with for the last few days.

June 8.—We left our encampment at seven this morning, and travelled about three hours, making about six miles, when we halted for the day. The road was extremely heavy from constant rains. It was very pleasant; the thermometer at seven o'clock in the evening was ranging at 75° .

To-day a buffalo was killed by Mr. Leach, one of the train agents, and it was the first time I had ever tasted the meat of one. The hump is considered a great delicacy, but, for my part, I did not consider it anything to compare to beef. It was unfortunately an old bull; the young

cows are doubtless much finer, but we had just been feasting on fine Missouri beef, and were therefore ready by comparison to condemn the wild beef of the prairie. I think, if we had been pinched by hunger, it would have been unanimously pronounced to be the best of the two.

The command stood greatly in need of wood, for we had reached a region of country entirely destitute of it, where a tree might be looked on as a curiosity: we were therefore compelled to resort to the *vache de bois*, which is a fine substitute when you get used to it, and is always used by hunters, who never think of the scarcity of wood when this can be obtained.

Grazing along the river banks was becoming very indifferent, which made it necessary to encamp nearer the bluffs, which often made it difficult to procure water; but it probably was better in some respects, as the Platte water was thought to have greatly increased the cholera symptoms since we first commenced to use it.

June 9.—It rained a little last night, and had much the appearance of it this morning; the thermometer at six o'clock was at 64°.

We got under way at half-past six o'clock this morning. The day being fine, it enabled us to make a long march, and at half-past two o'clock we arrived in camp, having travelled nineteen miles. Here we pitched our tents on a small branch about half a mile from the Platte, and made ourselves as comfortable as circumstances would permit for the night. It continued cloudy during the day, and became quite cool in the evening; the thermometer at sundown stood at 55°, making a difference of 9° since the morning.

The bluffs about this point begin to approach the river very near; they have varied heretofore from two to four miles from the banks of the Platte. Our encampment was made within five miles of the junction of the North and South Forks of the Platte, and sixteen miles from where the emigrants make their first crossing on the South Fork, commonly called the lower crossing, which, I believe, is generally considered the best. Mr. Wilcox (the guide) went over the bluffs last evening on a hunting excursion, being a fine section of country for buffalo and antelope, but returned, after travelling twenty miles on the prairie, without being successful—a disappointment seldom known to a hunter along the Platte before this spring.

This valley has been heretofore a great range for game of all kinds. Herds of buffalo, consisting of thousands, have been seen grazing at one time, a few years since; but such has been the effect produced on them by the immense emigration this spring, that it has driven the game far beyond the bluffs; and the buffalo seldom return to the river except when forced to do so for the want of water, and then in small numbers. Their range is now on the headwaters of the Blue and Kansas, and from thence to the Arkansas. I have no doubt, if the emigration continues a few years more, as large as it is this year, not one will be found along the borders of the Platte, or near Fort Kearny, where they have been known to approach the out-buildings, apparently for shelter in the winter.

We had the unpleasant duty to-day to perform, as once before, of passing along the road many graves of the unfortunate emigrants; among them was the grave of a man who had died at the age of sixty-four years,

from general debility. One would suppose, with a man who had arrived nearly at the age of three score and ten, that his thoughts would have been on anything else than the treasures of this earth; but such is the charm in wealth, that, on this route, it was not unusual to overtake men and women who were scarcely able to walk from age, all destined for the gold diggings.

I had not proceeded very far beyond this place, before I came to the resting-spot of Captain P. S. Gray, of Texas, who had served in the Mexican war. I could not help thinking, as I passed, that he had travelled far to find a solitary grave, so distant from relatives, and in a spot where the prints of the white man's footstep were never seen until within the last few years. His comrades, however, had performed the last act of kindness, by decently interring him in this lonely spot, and placing at the head of his grave a well-cut slab, with the date of his death, name, age, and the disease with which he died, being cholera.

On the right of the road, and not far distant, we passed the encampment of a party of Cherokees, who had broken up their party, which had become very general among the emigrants since leaving Fort Kearny. It consisted, a few days ago, of fourteen persons; since yesterday six had died with the cholera. One was dying at the time they were visited, and the remainder were too ill to assist in burying the dead. Among the whole of this party there was but one man who really was able to render any assistance to the others. This was a sad spectacle to behold. These people had left homes where many of them were no doubt comfortable and happy, and never perhaps had been required to labor for their daily bread half as hard as they had on this march. The gold mania had, however, spread far and near; and, being seized with it, they had abandoned comfortable homes, blinded with the belief that fortunes were soon to be realized, which in a great degree was imaginary, and they have, like many others similarly situated, found their graves in this wild and lonely region.

Much fear was entertained that the cholera would increase; we certainly had every reason to suppose so, from the many deaths among the emigrants along the road, and their present helpless condition.

Within the last four days the command had lost several men by the cholera, and it had every indication of increasing among them. On the fourth two men died, and one on the seventh; and Doctors Moses and Smith were seriously attacked by it, who were the only two physicians along with us to attend the three divisions that were required to travel some distance apart.

I had seen so much of it between Forts Leavenworth and Kearny, that I did hope the command would before our reaching it, be entirely clear; but it seemed to move as the emigrants did, and we were destined to keep it among us in spite of every precaution, until our arrival probably in Oregon.

I think it was about this place that a man was found near the bluffs who had entirely lost his reason, and had been abandoned by the company to which he belonged, either to starve or to be picked up by some emigrating party who might possess more humanity for him than was shown by them. He was taken to Fort Laramie by the troops, and there left under the care of the physician of that post.

The road to-day was much cut up by gullies, which are the natural drains from the highlands to the river, and in many places were so broken as to render it necessary to cut down the banks and make other improvements before we could pass them, without which it would have made it very fatiguing to the teams. The road thus far along the valley of the Platte was good, and, with the exception of the mud, which made it very heavy, it could hardly be surpassed by any I have ever travelled over. It reminded me very much of the roads in the Mississippi bottom, which are always fine in good weather, but are the reverse whenever the rainy season sets in.

The valley of the Platte is very level and uninteresting, and but little better beyond the bluffs: there you find a little under-growth in the ravines, of dwarf oak and elder; where you get the wild gooseberry and currant, which are the only fruits to be met with about here, and are very inferior in taste when compared with those cultivated. They can be made palatable when properly served up, and afford a little variety to those who are compelled to resort to salt food, which is so very deleterious to health when constantly used on a long march like this.

June 10.—To-day being the Sabbath, it was a day of general rest among the emigrants. As the command had been considerably delayed since leaving Fort Kearny, it became necessary to make up for lost time, and we therefore did not follow the good example set by our fellow-travellers, deeming it more prudent to rest towards the end of our journey, if time would permit us, than at the commencement of it. I think, however, one day in the week should be taken for that purpose; it relieves the teams, and prepares them anew for their labor. The morning was cloudy and disagreeable. The thermometer at 5 o'clock was at 58°. Each division marched off about the hour of six, the third division having fallen some four or five miles in rear of the second, which was some distance behind the first.

I ascended the bluffs this morning, and could easily discover where the two forks of the Platte river came together. It is not immediately below the lower crossing of the South Fork, but at least sixteen miles, and a short distance above where our encampment was made last night.

To-day five buffalo were seen. When first discovered they were running from the river across our road, and making towards the bluffs. It created, as might have been expected, a very great excitement; from the highest to the lowest all seemed to be desirous of joining in the chase, and it was with some difficulty that they were prevented.

Several of the officers, with some of the men, gave chase, and soon came up with them, when the firing commenced. One of the buffalo was singled out, and, taking a circuitous route, received an additional fire as he passed towards the rear, and before being brought to bay there was a small troop in pursuit of him. He at last came to a stand, and, although writhing with pain, he would now and then make at the nearest horseman who was disposed to approach him. One of the soldiers, it may truly be said, attacked him sword in hand, giving him a blow over the head, as if he really thought any impression could be made upon him.

I think I counted sixteen mounted men after this poor animal, who, with revolvers, kept up a regular fire. All seemed to be eager to have the

satisfaction of saying that they had shot at a buffalo, if they were not successful enough to kill one. Lieutenant Lindsay at last brought him to the ground, and had the credit of being the victor. The other four were all disposed of. Lieutenant Frost killed one; but the most successful of the hunters was Captain Rhett, who being mounted upon a fine swift animal and extremely active, was well prepared for a good chase, and singling out an old bull, was determined to kill him without the assistance of any one. His horse being very fleet, soon brought him alongside of the buffalo; he had not run very far before he was able, with his six-shooter, to place a ball in a vital part of the animal. The horse appeared to enter as much into the spirit of it as the rider, and being very manageable, could be placed wherever required.

Having amused himself by riding sometimes alongside, and then chased for a short distance by the animal, he at last put an end to his sufferings; and, in the true hunter style, taking such portions as are considered the most delicate, left the rest to be devoured by the wolves, which are found in numbers prowling about the prairie, and particularly in a buffalo range. Mr. Leach was not last in the hunt; he killed another, making his second since we left Fort Kearny.

We met this morning a man from the Salt lake, who informed us that he had been robbed by a party of Crow Indians, who took from him his horse. He also gave us the unpleasant information that grass was extremely scarce beyond Fort Laramie, caused by the immense emigration which had already past the fort, having started early in the season. By him we were able to send off letters; for such opportunities were very seldom met with, and we were glad to seize upon any, and particularly one so favorable as this.

We soon came to the lower crossing of the South Fork, where we found a number of wagons on both sides of the river. Some had crossed, not without much difficulty; others were then crossing, but with much trouble, for the rains had greatly swollen the river, so as to endanger their stores, as well as running the risk of losing their wagons; while many were on this side waiting for a more favorable opportunity to get across.

The banks of the South Platte seemed to be lined with large trains, moving on both sides of the river, and over the divide which separates the North and South Forks. They could be seen as far as the eye extended. To look at them, it would seem impossible that grazing could be found for such an immense number of cattle that must necessarily be thrown together when it sometimes becomes necessary to stop for water. As the emigrants passed Fort Kearny this spring, the wagons were counted by the guard daily, and on the first of June better than 4,000 had passed, not reckoning those that were on the left bank of the river, which could not be seen from the fort. While on the journey to Oregon, I had a good opportunity of ascertaining the number of persons with each wagon, and it was a small average to estimate four to each one; which would make, at this time, nearly 20,000 persons ahead of us. The number of oxen were very seldom less than ten to each wagon, and more frequently twelve. With this number, together with the many outriders, as well as cattle which were driven along, the number of animals in advance of the regiment could not have been less than 50,000,

From this statement it will not be difficult to calculate the number of emigrants who went to California, as but few, comparatively speaking, were destined for Oregon. To this number add those who took the Santa Fé route, also those that were still in rear of us, and it will not fall short of 35,000 souls. I feel confident in saying, that on this trail there were not less than from eight to ten thousand wagons passed during the season, with animals in proportion.

There were with the command about 1,200 mules; the horses belonging to the whole regiment amounted in all to about 700: a pretty round number, altogether, to provide for daily for a period of five months. On a prairie, where one million of buffalo have been seen scattered over the hills and valleys, it may be thought that the animals ahead of us were of but little importance; but when you think of this number stopping on the borders of some convenient stream, to be adjacent to water, and required to be kept within a short distance of camp, it will strike one with surprise how we ever got through the country beyond this, where grazing is always bad, without some great disaster; and when I now reflect upon the past, it often seems astonishing to me how we ever reached the Columbia river without losing half of our teams.

Colonel Loring concluded to ascend the river from this camp, hoping to find a better crossing, and we continued our march a few miles further, where the second division encamped among the hills, and their horses were taken to an island to graze for the night. The first division stopped about five miles ahead of us; and the third in the bottom near the lower crossing, which we had passed during the evening. The distance travelled to-day was twenty-five miles: the road being excellent, and the day pleasant, our teams came into camp much less fatigued than usual.

June 11.—We did not get off before six this morning; the storm of last night having scattered our mules, much time was lost in hunting them. The wind blew a perfect hurricane, knocking down our tents and blowing off the wagon covers. The rain fell in torrents, as if it would deluge the valley below us, and it was very fortunate that we had encamped among the hills.

I do not know when I have ever experienced such vivid lightning; so great was the glare, that the whole camp was at moments perfectly visible. The braying of mules, lowing of cattle, and the racing of horses through the camp, gave an additional excitement to the scene, and very little rest was enjoyed by any one through the night. The storm caused a stampede among the horses and mules of the third division; four belonging to the travelling forge ran off, but were overtaken and brought back, except one, after having being followed nearly fifteen miles.

There was much firing among the hills during the night by the emigrants, who were guarding their cattle; the storm having caused a stampede among them. The guard in following them became separated, and were only able to find their camps by this means.

On a march of this kind many amusing scenes take place, and seldom occur without being seen or heard of by the whole command. Thrown together as they are while in camp, and travelling during the day, every little occurrence that takes place is treasured up for the want of any better, for those who are always ready to amuse themselves at the expense of

others. One of our men wandered out of camp last night in pursuit of his horse, and getting a little confused, his whole mind filled with Indians and the thought of losing his scalp, he lost his self possession, and doubtless thinking that he had been out longer and had gone much further than was really the case, set up a yelling, with the hope of bringing some one to his rescue, and made as much noise as if he had been attacked by a band of Indians. The guard found him in this condition, running about the hills, with but little knowledge of what he was doing, and much less as to where he was going, and relieved him, no doubt much to his satisfaction, and greatly to his surprise to find himself within a few hundred yards of camp. It was soon known this morning, and the poor Dutchman, who had never dreamed of a prairie or an Indian until he came on the march, had but little rest the balance of the journey.

The day was clear. The road lay over a rolling prairie, which soon became dry and firm, and we travelled fifteen miles, reaching camp about five o'clock this evening, without any difficulty. We had now been several days in the valley of the Platte, on a road not the least rolling, and it was a relief to the troops, as it was to the teams, to get among the hills again. It is less severe in hauling than on a level road, such as we had travelled ever since leaving the fort.

A short time before stopping for the evening, we saw on the opposite side of the river an encampment of Sioux, who immediately struck their lodges, proceeded up the river, and stopped nearly opposite to us. A deputation, consisting of the old chief and about eighty of his party, came over to see us. This old savage had tried to make himself look as respectable as possible, and had given a coloring, with a little vermilion, to his gray locks, which hung profusely around his shoulders. His only article of dress was a green frockcoat, not of the latest cut, that reached to his ankles, and on his shoulders were an old pair of epaulets, that looked as if they had seen some service. His leggins, which were of gray cloth, were a substitute for pantaloons. To complete his costume, his cap was made of grizzly bear skin, with a long red feather, supported by a large brass plate in front, and a medal suspended from his neck, made in 1809, with the likeness of President Madison on one side. To take the whole group together, with him at the head, would have been a scene for any painter; for of all attempts at dress, this exceeded any I have ever seen among Indians. He felt, no doubt, that he was dressed for the occasion; and we should have felt ourselves highly honored, although it did afford us a little amusement. This was the celebrated *Queue de Bœuf*, one of the Sioux chiefs from the plains.

These Indians were very anxious to let us know their great friendship for the whites, and expressed much pleasure at seeing so many white warriors. They were very inquisitive, in wishing to know how far we had come, where we were going, and how long we would be travelling, and ended their visit, as is usual among them, by asking for provisions and a few presents, which the Colonel gave them. This was a war party, who had been in pursuit of the Pawnees, and were then returning from below.

We were unfortunate not to have an interpreter along who could speak the language, as it would have been well to have explained to them our

object. I believe I was the only person in camp who could understand anything they said, and my knowledge was very limited of their language, having forgotten much since being stationed among them, many years since.

Having obtained for them such things as they seemed to desire, I returned to the second division, which had encamped two miles in rear of the first. I found at my tent two young warriors, one of whom presented me with a piece of buffalo meat, which, like all Indian gifts, cost me in presents double its value. He commenced by begging for bread, meat, and whiskey; and indeed he wanted something of everything he saw, and finally concluded that he would like a Mexican blanket I had on my bed, which I declined giving him, and at the same time making him fully understand that it was time to be off. He very soon left, but not without getting a little whiskey, which he coolly put into the tripe of a buffalo which he had killed that day, and appeared to be as well satisfied as if it had been placed in a cut glass decanter. What the taste of it could have been by the time he drank it, will not be very difficult to imagine.

Shortly after leaving the Indians at the encampment of the first division, quite an excitement occurred among them. It proceeded from a horse being ridden into camp by one of their young warriors, which was recognised and taken by the command. It appeared that the animal had been carried off by a deserter, and, as they said, sold to the Indian, who believing himself justly entitled to it, could not be made to understand why it should be taken from him, as he had come honestly by it. When the mark of "U. S." was pointed out to him, and they endeavored to make him comprehend by signs that the horse was the property of the command, it seemed impossible to do so; a shake of the head was all that could be got from him—he either did not or would not understand anything that was said to him. It was, however, made very plain to him, when he saw his horse led off to one of the companies, that there was more than one owner. The deputation moved off quite incensed at the wrong which they conceived had been done one of their party, being too much offended to carry off the provisions that had been given to them.

Upon reflection, it was thought to be the better plan to send back the horse to their encampment, as the Indian had obtained him in good faith, although the animal was stolen property; at which they became quite pleased, and expressed much satisfaction, and soon sent for the provisions that they had left. It was very well that this course was adopted, for they would have given us during the night much trouble to secure our horses, having it in their power to have annoyed us considerably without the least fear of being punished.

Our encampment was made near the bluffs this evening, the bottom being too wet and low to approach the river any nearer.

The mosquitoes were very numerous here, and had annoyed us very much throughout the day: our horses were frequently covered with them, which made them very restless, and had greatly troubled them since leaving the fort.

June 12.—The night was cloudy, and the morning quite chilly. The command left at six o'clock, and travelled about twelve miles to another ford, which we found, upon examination, to be too deep. The bottom

was very uneven and filled with quicksand. One squadron crossed, after much difficulty. It was thought to be too deep to venture the train, and, as the trail led further up the river, the Colonel, with the two guides, Lieutenant Frost and myself, followed it about thirteen miles to where it crossed, leaving the command at the middle ford, where they made their encampment for the night. Finding the bottom of the upper ford much more even, and less quicksand, we determined to cross at this place, and returned again to camp, which we reached at 7 o'clock p. m., in time to get clear of a very severe thunder storm that was fast gathering.

About a mile from the upper crossing an Indian lodge was seen, standing alone in the prairie, which we took for a medicine lodge, or where some chief had probably been buried. It was too late for us to visit it, as the evening was drawing to a close, and we were necessarily compelled to postpone it until to-morrow.

For the last two days, antelopes in great numbers were seen on the prairie, but very few deer. This evening was very rainy and disagreeable. Grazing for the animals at this encampment was very indifferent; the spring being backward in this section of the country, it had impeded the growth of the grass very much.

June 13.—Our tents were left to dry, which prevented us from getting off early this morning. The divisions left at 7, 8, and 9 o'clock, making an hour between each. We proceeded to the upper crossing, where we found that the river had risen a few inches during the night. This was much against us, being already too high to risk the trains. The Colonel's carriage was first sent over, and reached the opposite side without much difficulty. We next tried a loaded wagon, drawn by six good mules, which was nearly one hour getting over. The river here is 1,090 yards wide, and I began to think at one time that it would not reach the opposite bank in safety. After this, I had ten mules attached to each wagon, and half the supply train driven in at one time; and as long as the leading wagon kept moving, the rest followed very well, and got across much better than any one supposed. The mules frequently got into the quicksand; but the extra-duty men being stationed in the river at the worst places, were ready to give immediate assistance. Such was the course adopted, and the trains were all passed over in safety. Out of 160 teams we lost but two mules, which were drowned in recrossing the river: being compelled to return against the current, they often became entangled in their harness.

It was the astonishment of all that more accidents did not take place; for it was not uncommon to see teamsters down in the water at the same time with the mules, and so entangled with the harness that it appeared impossible to extricate them. To make it more disagreeable, it rained throughout the evening; but the command all got across in safety, and encamped on the left bank of the South Fork this evening, much to the gratification of every one—for we dreaded the crossing of this stream more than the balance of the journey.

We had with us four families, who remained in their carriages while passing over, and deserved great credit for the firmness and presence of mind they evinced; for there was not only great danger, but the looks of the muddy water, the great width, and the rapid current of the river,

were enough to deter the stoutest hearts. On examining the train, I was pleased to find the stores all safe, having suffered but very little damage, although the river was deep enough in places for the water to enter the wagon-bodies. The mules, after the labors of the evening, were much the worse for wear, and a day's rest would be of great advantage to them, as the grazing was very good at this place. Having reported their condition, an order was issued for the 2d and 3d squadrons to move on the 15th, and the 1st at 12 o'clock to-morrow.

I examined this morning the lodge referred to yesterday. It was of a conical form, made of dressed buffalo skins, nicely stretched over sixteen cotton-wood poles. There were inside, the remains of an Indian lying on the ground, and covered with a buffalo skin pinned to the ground with small wooden stakes. A small scaffold was erected over the body, supporting what appeared to be a pack, and several small trinkets, that were formerly worn by the deceased. On the outer side of the lodge, and out of our reach, there were several strands of hair, indicating the number of scalps taken by him; and, from the great care in which everything was arranged, I inferred he was some great chief.

The dirt was carefully thrown up around the lodge, and, strange as it may seem, the wolves had not in the least disturbed it. An old United States flag was suspended from the top of the lodge, much torn, by the effects of the wind, against the points of the poles. Some emigrant had cut a small hole about two inches long in the lodge, to gratify, no doubt, his prying curiosity, which we found to be very convenient for the same purpose.

It is a curious fact, that in no instance will one nation disturb the dead of another, or anything that may be about them, not even when at war. The Indians deserve great credit for the respect they show their dead. Each tribe has its own peculiar mode of burial, and in many respects they are very similar.

An order was given that the lodge should not be disturbed, which was very proper, as there might have been some thoughtless persons who would not have considered it a very heinous offence to have taken a beautiful pipe, for a curiosity, which was lying on the scaffold inside the lodge.

June 14.—The second and third squadrons remained here all day, the first leaving at 12 m. To-day was passed in unloading, drying, and preparing everything for to-morrow. We had now been out thirty-five days from Fort Leavenworth, and much longer than it should have taken; but the mules were poor, and several days were lost in waiting for the beef cattle.

We now began to feel as if the journey had really commenced; having crossed the South Fork of the Platte, we had no more obstacles to pass between here and Fort Laramie.

June 15.—We left our encampment this morning at 5 o'clock, crossing the "divide" between the forks. This is a high level prairie, until you approach near the Platte, where you strike Ash Hollow, a deep ravine that runs to the river, and is about two miles long. The country about it is very broken, and we were compelled to let the wagons down into it by ropes. In this hollow there are a few ash trees and dwarf cedars.

The bluffs are very broken, and composed of rotten limestone and sand, which are generally the composition of those along the river.

It rained last night very hard, making the roads heavy, until the middle of the day, when it cleared off and became very pleasant. We encamped on the North Platte this evening at 5 o'clock, having marched twenty-two miles, and accomplishing the distance without any difficulty, losing not more than three hours in letting down the wagons. We found the ravine very sandy, as well as the bank of the river equally so.

I saw, while crossing the prairie, a large herd of buffalo; but valuing my horse much more than the pleasure of the chase, I passed without disturbing them. They were the last met with until arriving at Deer creek.

The country in the vicinity of the North Fork is entirely destitute of wood, but in this respect it does not differ from that already passed over. The river is much narrower than the South Fork, but less muddy, and differs materially in the formation of its bluffs, which, in many instances, become rugged, steep, and frequently approach near the bank of the river, making the valley in places very narrow.

The grass was very scarce this evening, compared with that at the crossing of the South Fork.

June 16.—The day was very windy and clear, making it a fine day for travelling. The road was extremely sandy, which made the hauling very heavy. We commenced our march at 6 o'clock in the morning, and stopped in the afternoon at 5 o'clock, having traveled only eighteen miles.

I was called on to-day to assist an emigrating party, consisting of a woman, her son, daughter, and son-in-law, all of whom were too sick to attend to their wagon. I placed one of the extra-duty men with them for the day, to drive until they were able to hire some one, or take charge themselves.

We passed many emigrants to-day, who were very much discouraged at their condition; for while the greater portion were sick, others began to consider it a hopeless undertaking, and many were turning back, who brought, as might have been expected, discouraging news of the country ahead.

It was very evident that out of the immense emigration that had left the Missouri, there were a great number who must suffer before they could possibly reach their place of destination, or where assistance might be given them. As to the little they received from the troops, it was merely temporary; for large numbers required the same, and it was impossible to render them all any material aid: besides, it would have hazarded the accomplishing of our own journey to have attended to their wants.

I will not here attempt to give any description of the sufferings of these people, as I should be compelled to diverge too much from the narrative which I am required to give of what appertained simply to the command. The public prints, in different parts of the country, have long since given a detailed account of their sufferings, and I can only say that they were not at all exaggerated. Our encampment this evening was made between the river and the bluffs, and the grazing along here was very indifferent.

June 17.—We started at six o'clock this morning. The road lay along the river, and passed over a much higher and more rolling country than yesterday. After a march of twenty miles, we came in sight of the Lone Tower and Chimney Rock: the former is about six miles from our encampment, and to the left of our road; the latter could just be seen, and was still one day's march from us, although, from the state of the atmosphere, it appeared but a very short distance.

Our road to-day led by a hill where the Indiana company had interred three men—Russel, Judson, and Phillips—who died with the cholera, on the 14th, 15th, and 17th inst., while encamping at this place. As this hill is somewhat prominent, it will be a landmark hereafter for future travellers who pass this way.

The grass for our animals this evening was very good at our encampment, which was on the banks of the Platte. The evening was delightful, with every prospect of a fine day to-morrow.

June 18.—The morning was calm, and warm. We started at 9 o'clock, and I visited the Lone Tower on the route; it is about two hundred feet high, and stands alone on the prairie. It has much the appearance of a tower or old ruin, as you approach it, and no doubt was once connected with the high range of bluffs that pass the Chimney Rock, twenty miles from here; but at present it stands entirely alone, the range of bluffs not being within two miles of it. A small stream passes its base, which, after winding through a valley about three miles wide, empties into the Platte, near where we encamped last night.

We encamped this evening three miles from Chimney Rock, on the banks of the Platte, after a day's march of twenty miles, where we found very good grazing.

June 19.—I visited Chimney Rock this morning, as the command wended its way along the river. The column did not appear to be more than fifty feet high, and is composed of light clay, which I found to be extremely soft, and the same composition as that of the bluffs near it and the Lone Tower. From the base of the hill on which it stands, it is probably over two hundred feet high.

There is no reason to doubt that this column of earth once belonged to the bluffs which are very near it, and by time, and the assistance of the elements, has been worn into its present form. When approaching it, it takes a variety of forms—sometimes that of an old ruin, then a very sharp cone; but, after all, more the shape of a chimney than anything I can compare it to. The variety of forms which are seen proceed from the winding of the road, and the position of the bluffs about it.

We left the river soon after passing it, and reached a valley near Scott's Bluffs, where we made our encampment for the night, having travelled twenty-three miles.

The scenery for the last two days has been very picturesque. The hills are much higher and more broken than any we have seen on the march, and begin to change the monotony which we have had so constantly since leaving Fort Kearny.

This evening we suffered for water, having only a small spring for two squadrons, and the water used for the horses came from mud holes which we found near the camp. Wood, as usual, was very scarce, but we ob-

tained enough in the valley for our use, that had been swept from the hills by the heavy rains which frequently fall during the summer. What was found, principally consisted of dwarf cedar and pine. We had but very little for our horses at this encampment, and the grass began to change as rapidly as the face of the country.

June 20.—Previous to reaching our encampment last evening, we had a heavy shower of rain, accompanied by hail, which made it very cool this morning. We got under way at 6 o'clock, and after passing up the valley about five miles, ascended the first high hill since leaving Fort Leavenworth. This is partly covered with cedar, which was the first we had met with on the march. There is also a spring of delightful cold water which we should have reached last evening, but, from the want of a proper knowledge of the country by the guide, we failed to do so. Here was a blacksmith's shop and trading-house, built in the true log-cabin style, which made us all feel as if we were in reality approaching once more a civilized race.

Shortly after ascending the hill, we came in sight, for the first time, of Laramie's Peak, which belongs to the range of Black Hills, and was probably eighty miles from us. The scenery is very beautiful from the top of this hill, presenting to the view mountains, hills, and valleys, in every direction, changing entirely the scenery which we had been so long accustomed to, and convinced us that we were in reality approaching the Rocky Mountains, so long talked of. I do not know when I have witnessed a more beautiful sight. The road from here began gradually to descend, until towards the close of the evening, when we arrived on the banks of Horse creek, and made our encampment for the night, accomplishing to-day a distance of nineteen miles. It remained cool all day, which made it very pleasant for travelling, and we got on without much difficulty.

One of our teamsters ran off this morning, taking with him a public mule. A party was despatched in pursuit of him, but finding that he was closely followed, he took to the hills, and succeeded in escaping. Another mutinied to-day, and threatened to shoot one of the agents: he was placed in close confinement, and taken to Fort Laramie, where he was left, to be sent back to Fort Leavenworth by the first conveyance. This was the commencement of difficulties with the teamsters, who began to show signs of insubordination, and it was feared, as we approached the South Pass and Salt Lake, that many of them would leave us. For my part, I placed but very little dependence in any of them, and would not have been surprised to have seen them leave at any moment.

June 21.—Before arriving in camp last evening, we crossed a very miry creek, that gave us a great deal of trouble. We were frequently required to haul the mules out of the mud, besides breaking several of the wagons. It weakened the teams more in crossing this stream, than the distance travelled since crossing the South Platte. We got off at 6 o'clock; the morning was fine, but bid fair to be very warm through the day. The bluffs were very broken, and the road sandy. This proved to be the warmest day experienced since commencing our march. It had rained but very little since crossing the South Fork, which made it very dusty. Our road to-day passed close along under the bluffs, which intercepted

the breeze, and made it almost suffocating. In addition to this, the mosquitoes and buffalo gnats were very annoying to the animals and men; we had been much troubled with them ever since leaving Fort Kearny. We encamped on the Platte this evening, at 3 o'clock, having travelled nineteen miles, which was a good day's journey, against the heavy, dusty road passed over, and the heat we were compelled to support.

It was at this place that we got wood for the first time since the 9th instant, and the men seemed eager to gather it for fear of a scarcity the next day. Our animals fared very badly at this encampment, as they had for the last three days; and it was fortunate we were so near Fort Laramie, where it was in contemplation to rest, for our mules were fast giving out and the *cavayard* was daily increasing.

June 22.—The morning was fine. Having prepared for the march, we left our encampment at 6 o'clock, and arrived at Laramie's creek at 2 o'clock p. m., where the trading-house is located. It was excessively warm and dusty; although we had a light shower during the night, it had but little effect in laying the dust.

Fort Laramie is situated on Laramie's creek, a rapid stream, about sixty yards wide, with a firm, pebbly bottom. This stream rises among the Black Hills to the west, and falls into the North Platte, about half a mile below the fort.

This fort is built in the form of a quadrangular figure, and of unbaked clay, or adobes; the wall is about twenty feet high, with a small palisading on a part of it. There are two block-houses at the corners, diagonally from each other. Over the main entrance, which faces the river, there is also another small block-house. The buildings are made inside, the wall forming a part of them. They are very small, and have but few comforts to recommend them.

There are no trees about the fort to protect it from the rays of the sun, which are reflected from the surrounding hills. It is by no means a handsome location, the scenery of the adjacent country being entirely intercepted by small barren hills, which form the valley of Laramie's creek. The hunting at this place has generally been very good, and its only attraction; but even this has greatly diminished since the emigrants have made it the great thoroughfare to Oregon and California.

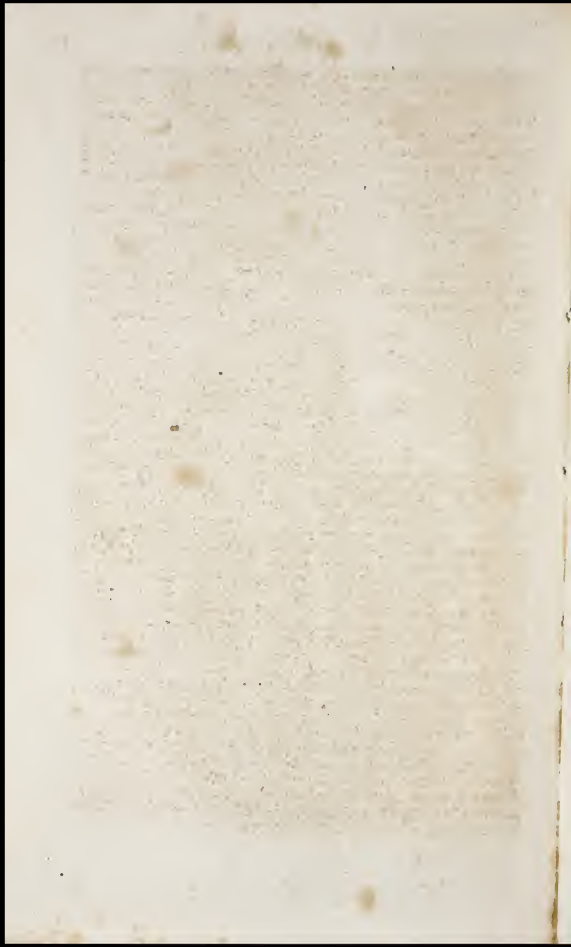
There is fine grazing on Laramie's creek, where hay may be gathered in the fall. Wood is scarce immediately in the vicinity of the fort, but pine and cedar may be procured on the hills across the Platte, about eight miles above here.

We had now arrived at Fort Laramie, 639 miles from Fort Leavenworth, a point where the government has established a military post, where two companies of the rifle regiment were stationed, which was to be a resting-place for us for a few days. Our train could now be overhauled and repaired, leaving such wagons as might be dispensed with, and mules that were broken down and unfit to continue the journey. There was still plenty of time for them to be recruited and sent back to Fort Leavenworth before the fall.

Since leaving Fort Kearny, we had travelled 327 miles, over a bad road, which in dry weather does not present one obstacle, but in the rainy season, it is extremely heavy and very severe upon teams; in such



FORT LARAMIE.



weather, I think it worse than the road from Fort Leavenworth to Fort Kearny. There are many deep gullies which require repairing, but a small party can always render them passable by being a little ahead. Water is generally to be had through the day, as the river is frequently touched, and is always in striking distance, except at Scott's Bluffs, where you leave it, and do not strike it again for forty miles.

From the 1st of June, our time was made very unpleasant by constant rains; it made the roads very heavy and the hauling extremely hard. Wood is not to be procured from the time you leave Fort Kearny until you arrive at this place, and nothing is to be seen but the naked valley and boundless prairies, in whatever direction the eye is turned.

There is a little more variety after arriving on the North Platte, as I have stated in my daily marches; the high bluffs on the banks of the river, as well as the several broken ranges in the vicinity of Chimney Rock and Scott's Bluffs, are a little relief after the great monotony which we have so long looked upon.

CHAPTER III.

March from Fort Laramie to Independence Rock, on Sweet Water river, 184 miles.

June 23.—The day was fine, and every possible arrangement was being made for a speedy departure. The whole train was overhauled to-day; the clerks were kept busily engaged until 11 o'clock at night arranging papers, so as to be ready for the march.

I regret to say that the dissatisfaction on the part of the teamsters was becoming more manifest, making it necessary to place another in irons who had openly resisted the authority of those placed over him. Indifferent as I found them, I do not know what we should have done without them, for the soldiers were raw recruits—some, not speaking the English language, were not capable of taking care of one horse, much less a team of six mules. Although their threats were regarded as of no importance, still we were in a country where there was neither law nor order. I therefore left him at Fort Laramie to be sent back, thinking it by far the better plan to get clear of such disaffected men, as the example which they set did not tend to benefit the others, who, in many instances, were disposed to do their duty.

The commanding officer of this post released them a few days after we left, considering, I presume, he had no authority to keep them in confinement, and they followed the command and the emigrating parties, stealing whenever an opportunity offered. They stole several mules from the command. One of the thieves was taken twice; but the guard not being vigilant enough to secure him, he was allowed to escape.

My labors with the command were daily increasing; both the agents and myself were required constantly to be on the alert. This was done until we were completely worn down, although I was fortunate enough to

be blessed with health, which kept me in the saddle from the time I commenced my journey until I arrived at the Dalles, on the Columbia river.

June 24.—I was agreeably surprised to find that the ox-teams that had started from Fort Kearny with subsistence stores on the third of June, had arrived in very good order. It was not my intention, when they first started, to take them any further; but their condition was so much better, compared with the mules, that I determined to push them on to Fort Hall. They crossed Laramie's creek this evening, having given the wagon master orders to move with such emigrants as are regular in their daily marches, and not to be governed by us.

This was a very fine day, although much warmer than heretofore. The clerks worked hard throughout the day, and very late to-night, to get everything in readiness by the morning, so as to leave. All the stores were overhauled, and inventories taken of them; besides the papers connected with the property left at this place, as well as the report of our march made to the head of the Quartermaster's department. I turned over to the acting assistant quartermaster at Fort Laramie twenty wagons and one hundred and twenty mules; also other property for the use of the post, and reported the train in readiness to move in the morning. Having completed the labors of the day, and the writing which was necessary to be done, by eleven o'clock at night we retired to rest, pretty well fatigued.

June 25.—The squadrons left at six, half past six, and seven o'clock this morning, all being ready before the first squadron crossed Laramie's creek. This stream was very high, and up to the wagon bodies, which damaged a little some of the stores.

Having all got across without any accident, it may be said that we had now fairly started again, not to stop before reaching Fort Hall, a distance nearly equal to that which we had travelled, and by far worse, for we were to pass over spurs of mountains, and through a broken, hilly country, almost destitute of grass; and without overcoming all this, our journey could hardly be expected to be accomplished.

We had now commenced a journey over an entire new country, filled with hills and valleys, and in many places broken and rugged, which was to cause us much labor and fatigue. Our road was a very rough one to-day; mountains were to be seen at a distance, rearing their heads far among the clouds, presenting a scene which was beautiful to look upon, and admonished us that what we had still to contend with would not be accomplished without much toil and suffering, not only to ourselves, but more particularly our animals.

We continued our journey among the barren hills, until we came to a deep sandy ravine, through which the heavy rains from among them pass into the North Platte, probably eight miles from the fort. On the right side of the road, and about three hundred yards below where it crosses the ravine, there is a fine spring, that breaks from the side of the hill, and affords an abundance of water. The men made an excavation, that collected a sufficient quantity in a few minutes for the whole command. It was very refreshing, being the first we had met with since the morning, and by no means warm, although not as cold as springs generally are among the hills.

The road turns a little to the left, and leads through a deep gorge, ascending a high steep hill, covered with cedar and dwarf pine. After reaching the top you again strike the prairie; and about three miles from here we took a road to the right, commonly known as the Mormon trail. It had been but little travelled this year, and there was every prospect of meeting with better grazing for our animals for the next two days, than by following the road which leads towards the mountain range, although it was much more rugged than the old trail.

We made our encampment on a small stream in a very broken part of the country, having on its banks a little cotton wood. Before reaching it we had a very heavy rain, accompanied by hail, which certainly fell faster than I have experienced for some time, making a hill which we had to descend very difficult for the train. I doubt if this rain will ever be forgotten by those who were exposed to it, as it was among the last of any importance until we arrived at Fort Vancouver, on the Columbia river. It lasted but a short time, and was very partial, as the rear division got none of it.

The water came in torrents from the hills. While crossing the bottom beyond the creek, we met it rolling on, half-leg deep, to the stream below. The ravines, which a few minutes before were dry, soon became filled, and the dry bed of the creek which we had just passed was made suddenly a large stream.

The evening cleared off, and the night was very pleasant. The distance marched to-day was twenty-one miles. The mules and horses were very much fatigued, as the road throughout the day passed over hills and valleys that were very rough, and entirely different from any day's march since the commencement of the journey.

June 26.—The road this morning passed along a narrow ridge; and after getting under way at the usual hour, Captain Tucker and myself descended a deep valley, being entirely surrounded by perpendicular rocks. There is a small cañon which led to the river, which is the outlet to the water which we found in this small valley, and accumulates principally from a spring at the head of it.

There was very fine grazing in it, sufficient for two thousand horses, with fine water running entirely through it, which came from the spring. As the view of this place, from the road, was intercepted by other small hills and ravines, there are but few who ever notice it. Here I got possession of a fine pair of elk horns, which, from the size, induced me to carry them to the Columbia river, and thence to Washington, as they are probably the largest ever brought from the mountains.

This day's march brought us to Horseshoe creek, near Heber's spring, after a march of fifteen miles, where we procured wood, water, and grass in the greatest plenty. This surpassed any encamping ground we had met with since starting on the march. The grazing at Fort Laramie was certainly very excellent, but nothing to compare to this. The country, although uneven, was not very hard to travel over to-day, and we completed our journey by two o'clock, p. m.

I received orders this evening, from the commanding officer, to fit out Colonel Porter with materials to prepare a raft at the Mormon ferry, on the North Platte, now eighty-seven miles from us. Although late at

night, it was complied with, and he left the next morning early for that place.

June 27.—This morning was very pleasant, after a slight shower of yesterday evening. We proceeded along a level road to-day, until we again struck the river, at a grove of cotton-wood trees, about twelve miles from where we encamped last night. Since leaving Fort Laramie we had travelled but little on the Platte, being separated from it by high rocky cliffs and broken ground along its banks.

Trees were lying in every direction at the cotton-wood grove, having been cut down by the emigrants, the few years previous, for food for their animals. It may be thought a poor substitute, but the bark, as well as the small limbs are very nutritious, and have often been resorted to in this region to sustain animal life for months.

We continued up the valley a few miles, when we left the river, not to strike it again until we came near Deer creek, where we might be required to cross. Our march was now through narrow gorges, winding around hills the whole evening, until it brought us on a ridge, where the country could be seen in different directions for a long distance. Here we made our encampment for the night, although a very poor one, as the grass was very indifferent. Since leaving Fort Laramie, we had passed over a fine range of country for game; elk and antelope abound in great numbers, and if time had permitted us to hunt them, they could have been killed without any difficulty.

The scenery from the top of the ridge was very picturesque. Laramie's peak and the range of Black Hills could be very distinctly seen, and frequently reminded me of some of the mountain scenery I had met with in Mexico. I ascended several high hills, and had a fine view of the country as I travelled along to-day, but there is nothing to recommend it except the beauty of the scenery, as the land is very poor and barren, being of very light soil, and covered principally with wild sage.

June 28.—The morning was clear and mild. We did not commence our march until 7 o'clock. The road led along the ridge for some distance, then passing into deep ravines and over high hills, where our route could be seen twenty miles ahead. At such places it was very distinctly marked, as the soil is of a reddish cast, being a mixture of red marl and sand.

About the middle of the day we arrived at a rapid stream, called the Bitter Cotton-wood, which is about thirty feet wide, and the water very fine. Previous to reaching it, the road became very sandy and difficult to get over. There is a fine cold spring to the right as you enter it which is seldom seen. After crossing the stream the road ran along the left bank for several miles, when it again turned in among the hills and ravines, and, at the end of our day's journey, we arrived at the base of a range of high hills, which might be more properly called a mountain spur, where water could only be obtained by digging for it. This is commonly known as the Spring branch. Here we made our encampment, having travelled twenty-one miles.

After crossing the Bitter Cotton-wood, and before stopping for the night, we came to the base of a hill, where we found a large quantity of gypsum, which is very near a stream, where the water was lying in holes and of a very inferior quality.

There is much bitter cotton-wood on the stream we first passed to-day, from which it takes its name. With the exception of this, we have met with no wood of any importance; the hills and valleys being entirely destitute of anything like vegetation, except artemisia.

June 29.—Our road to-day passed over a dreary and uninteresting route—more so than any since leaving Fort Laramie. The hills are not so high as you approach the Platte, but entirely barren. Nothing was to be seen but the artemisia, or wild sage, which is extremely uninteresting, having neither beauty nor usefulness to recommend it, and its odor by no means pleasant. We were now destined to travel a very long distance where this shrub was constantly to be seen, and in greater quantity than had already been met with, for it may be said that we had just entered it, as it was not very plenty or large, compared with what we afterwards met with on the route.

There must be something in the composition of the earth particularly adapted to its growth, for, whenever grass was scarce, we invariably found it in great quantities. I have travelled for days, before reaching the Columbia river, where nothing could be seen on the highlands and plains but the artemisia, which for miles looked as if the whole country had been cleared of all other vegetation to make room for it.

The morning was clear, and the day throughout very warm. The command was detained by the hunting of horses and mules, which was usually the case, but more so this morning. With all this, we accomplished twenty-six miles. As it was necessary to reach the river, we were told, to get grass for our horses, but we encamped at the mouth of Deer creek, where grazing was even worse than might have been found at some of the streams which we crossed to-day, having crossed several; one of which was the Bonté, a fine, clear, rapid little stream, which came from the Black Hills, and falls into the Platte about ten miles from where our trail crosses it.

The route to-day was very well watered by these streams, which was the only recommendation it had, as the soil and face of the country have been the same since leaving the fort. We got in very late this evening; twenty-one miles was a long march, as well as a warm one, and the indifferent grazing for the last two days, and the heavy hauling over this uneven country had weakened our animals very much, and jaded them considerably. Seven of our teams gave out to-day, which was very discouraging; but our consolation was, that while we were crossing the river it would enable them to become sufficiently rested to pass over the barren region which lies between the Platte and the Sweet Water, where better grass would be obtained, as the valley of the Sweet Water had been heretofore noted for it, as well as for its good water.

It was too late in the evening, after arriving at camp, to examine the country around us; the horses and mules were therefore staked out, to do as well as they could for the night, intending to take them to the base of the mountains in the morning, which was seven miles distant. This will, no doubt, appear a long distance to drive animals to obtain grazing; but such was the state of the country this season, that it became necessary to do it to prevent starvation, and it will give some idea of what we

were frequently compelled to resort to on this march for the preservation of our horses and mules.

June 30.—Although the morning was very pleasant, we did not leave camp until half-past seven, as the horses and mules had scattered in every direction among the hills, having got but very little last night, after a long day's march. It was our intention to go but a few miles to-day, where we would be nearer the base of the mountains. Lieutenants Frost and Palmer left camp early to examine the range, and did not overtake us until we arrived at Crooked Muddy creek, a distance of ten miles from our encampment this morning.

We encamped on this creek, and sent the mules and horses to where there was very good pasturage, about seven miles off, and had them guarded by the teamsters while there. The river presented a very busy scene; emigrants were crossing in several places, while others were engaged in constructing rude rafts of dry logs, which are attached together and pieces pinned across to confine them. By placing at the end two oars, which are used as sweeps, they are propelled to the opposite side, descending at the same time partly with the current. After reaching the opposite side, a yoke of oxen are attached to it, and it is carried up the stream sufficiently far, so that, when let loose, it reaches the point where it originally started from by the force and effects of the current and the aid of the oars. The wagons are taken apart, and it generally takes about three trips to carry over one wagon and its load. This you will perceive is very slow work, and would be still more so with a train as large as the one with us.

July 1.—The command remained here to-day, it being extremely warm, and at the same time would give us an opportunity of resting, being the first day we had stopped since leaving Fort Laramie. I went to the base of the mountains, accompanied by Mr. Dudley, and had a very unpleasant ride, as the ground between the river and mountains is very rough. We saw antelope in great numbers, and one or two buffalo, which we chased for two or three miles, but being better able to clear the gullies and difficult places than we were, they soon left us out of sight, for although large and apparently unwieldy, they are extremely active. It was in this chase that I saw Miller, one of my wagon-masters, for the last time, as he was seized with the cholera after returning to his camp, where the mules were grazing, and died in a few hours. He was a very efficient man, and a great loss to me. In the morning he was as well as any belonging to the train, and had been sent out to take charge of the party who were guarding the mules; but before the sun went down, he was no longer among the living, but resting quietly in his grave. This was the last case of cholera, I believe, which occurred in the command, much to the gratification of every one, for it was by no means a pleasing reflection to think we were surrounded by a disease which carried off the strongest without a moment's warning.

This range of mountains was thickly covered with cedar and pine, where lumber for public purposes could be easily obtained. There is coal on Deer creek, and along the valley. In one of the hills, near the Crooked Muddy creek, I discovered it myself, and I have no doubt it

may be found in great quantities. Having returned to camp, orders were given for the third division to cross at this place, while the first and second should move up the river to the Mormon ferry, where we might attempt to cross on rafts, or use the ferry. It was not far, as the distance was only eleven miles from here.

The Colonel and myself left camp about six o'clock p. m., for the purpose of reaching Colonel Porter's encampment, and having travelled about eight miles, diverged from the road towards the base of the mountains, when, after riding some time, we came to the place which he had left that morning. Where to find him we did not know, as the guide to the camp was completely lost. Having wandered about for some hours, we again reached the river, and arrived at the Mormon ferry about twelve o'clock at night. At this place we learned that the party we were in search of was up the river about four miles; we pursued our journey, and, after winding among the cotton-wood trees and the bends of the rivers, found them at half-past one o'clock in the morning. It was a bright moonlight night, and with the exception of being lost, and the fear of not finding the party before the next morning, the ride was by no means unpleasant.

July 2.—The morning was clear and quite cool before sunrise. The raft was hastily put together, and every preparation made for crossing the river; but it was soon found that the length of time, and the injury which the property would sustain by exposure, would not justify it, when the Mormon ferry could be hired for \$4 per wagon, and the same guaranteed to be delivered, with its load, on the other side of the river in safety. The raft was therefore abandoned and the ferry hired.

July 3.—This evening several wagons of the first division were crossed, and instructions given by me to have the mules of the first division train swam across early in the morning, which was accordingly done. The day, though warm, was very pleasant, but the mornings and nights were getting quite cool.

July 4.—Previous to leaving our encampment, which was about five miles from the ferry, a partial stampede took place among our horses, created by a general stampede of those from the first division. They had been turned loose to cross the river, but evinced no disposition to do so; and, after making several efforts to get them over, they broke through the command, running at full speed in different directions—some towards the base of the mountains, and others up the river, passing by our encampment, and taking with them a number of our horses.

It was in this stampede that one of my riding horses played a conspicuous part. He was hobbled by his fore-legs, so as to range about camp, believing him perfectly secure; but I was soon convinced that this mode of hobbling horses was no preventive against their running off, for he ran with them several miles, and was not very far behind the gang. They were, however, turned and brought back, after having run for several hours.

This stampede was very injurious to the horses, and they showed the bad effects of it a few days after. My horse was brought back with his legs much cut by the hobbles, and was more injured by it than by the march from Fort Leavenworth, and did not recover throughout the journey.

From the time the troops commenced the march the horses and mules had never been allowed to run loose, but were staked out at the termination of each day's march, and now finding themselves free, were extremely difficult to manage. The proper course would have been to have supplied *side hobbles* for the horses of each company; and by allowing them to range around camp on the prairies, where grazing was not difficult to procure, they would very soon have become used to them, and could at any time have been turned out without the fear of their running off; but I am compelled here to remark, in connexion with this subject, that there was not one hobble along, nor could I find in the whole train a bell, which is frequently required in herding animals, when it becomes necessary, from the scarcity of grass, to turn them loose.

The hills, or, more properly speaking, the range of mountains, which are a continuation of the Black Hills, approach the river at this place within four miles, and are thickly covered with very fine pine and cedar, and the hills and valleys beyond are also covered with timber of the same kind. This is a great place for buffalo and game of every description. It is said that grizzly bears are found here quite numerous; they were seen and shot at by the emigrants, but none of our command were so fortunate as to come across them here, or on any part of the journey. Large herds of buffalo were seen towards the head of Deer creek; but as our time did not justify any delay, or that we should waste the strength of our horses, which were already in a poor condition, we had to forego the pleasure of chasing them.

This morning a fine elk came within gunshot of our camp. He was chased by a party of us into the mountains, without being successful in killing him, although he was shot at. The black tailed deer are quite numerous about here, but it was difficult to find them without crossing the range, which would have occupied much more time than we could conveniently lose.

The grazing on Deer creek, and along the base of the mountains towards the head of Little Muddy creek, is extremely good, and there is everything here to recommend it as a pleasant location for a post, should the station be changed from Fort Laramie. It brings the troops nearer to the South Pass, where the Indians on war parties often frequent, and probably would be more disposed to commit depredations here than at any other point between Fort Laramie and Bear river. An excursion could be taken by the troops, during the summer, along the Sweet Water, where their horses would have fine grazing, and would give them an opportunity of scouring the base of the Wind River mountains, where they would most probably meet with the Crow Indians. About the mouth of Deer creek, and along the river for fifteen miles, the emigrants commence crossing: and by establishing a good ferry here by the troops, it would pay for the erection of a post, if the emigration should continue for a few years longer as large as it was this year; for the price of crossing the Mormon ferry varies from \$3 to \$4 a wagon.

The morning was fine, but very cold at five o'clock. The temperature of the nights and mornings at this place was sufficiently cold to make it necessary to resort to fires to keep ourselves comfortable, although in the middle of the day it is generally very warm. The first division succeed-

ed in crossing to-day, and the second moved down to the ferry, towards the close of the evening, and commenced to cross. This was the manner in which the Fourth of July was spent by the command, while throughout the country, in every city and hamlet, it was kept as a day of rejoicing. We had tried to reach Independence Rock in time to spend it there; but owing to our great detention immediately after leaving Fort Kearny, we were unfortunately prevented from doing so, by three days.

July 5.—The second division crossed over five of their wagons last evening. This morning, at quarter after four o'clock, we commenced to ferry the remainder, and finished at two o'clock p. m., and made our encampment on the hill immediately above the landing, where we remained for the day.

An order was issued this morning for the divisions to travel one day apart. The scarcity of grass through the country which we were about to travel over, rendered it necessary to adopt some plan of this kind. The face of the country having entirely changed since leaving Fort Laramie, it was only at certain points in our day's marches hereafter that grass could be procured, and even then in limited quantities.

The first division commenced its march this morning. Our mules were driven out about three miles from camp, being by far better than on the banks of the river, where they were guarded during the day, and kept until the morning.

In crossing the river yesterday we were so unfortunate as to have two men drowned; one of whom, wishing to get something from the opposite side, rode his horse into the river, and being fully equipped for the march, no sooner reached deep water than both man and horse went down. In the other case, one of the rafts was loaded with saddles and men. When reaching the middle of the stream an accident occurred, by the breaking of an oar, and, being carried down by the current, produced a panic among those on board, who, rushing to one side, careened it, so as to induce them to think it was sinking; when every man, losing his presence of mind, jumped overboard, and made for the opposite side, which they all reached in safety but one. It was astonishing what little forethought and presence of mind the men evinced in many instances on the march; and they reminded me more of children than persons who had arrived at the age of maturity.

The river is not over four hundred yards wide at this point, and has a very rapid current. To have attempted to cross the whole command on rafts would have caused much delay, as well as the loss of property and lives; for no emigrants crossed without losing a portion of their stores and wagons, while others lost their lives; besides, the state of the country which we were to pass over rendered it necessary to lose no time in getting ahead of the great mass of emigrants who were making every effort to push forward to get to better grazing.

There is but little timber along the Platte; the river is almost as destitute as the upper part of the South Fork. What there is consists in cotton wood, found scattered along on its banks for about fifteen miles.

To-day was extremely warm, the atmosphere dry and sultry. Rains had become less frequent of late, which made the nights cold and the middle of the day suffocating. We are now fast leaving the country for

game, and a few more days' marches would carry us to the South Pass, where buffalo and deer are seldom seen now in large numbers; the country between the mountains being almost too barren to support them, and the immense emigration driving them from the Sweet Water valley, where they frequent early in the spring, in large herds. We were soon to see no more of them after leaving here. Captain Granger informed me that there must have been on Deer creek one herd of at least five thousand. This has always been considered a great range for them, as they were seen in gangs, at the time General Kearny returned from California, in 1847, to the number of a million.

We observed, this evening, lights in the mountains, supposed to be made by deserters, as signal fires; for many had left the command, and we had every reason to think that there was a constant communication between them and those who contemplated leaving, and who were doubtless supplied of nights, in many instances, by provisions from the command.

July 6.—The second division commenced the march at half-past six this morning, passing up the river, and over a very sandy road for about eight miles, making the hauling this distance very fatiguing. It became better during the day, as the road leaves the river at this point, and does not touch it again, but passes over a rolling country filled with alkali ponds and artemisia. The ponds are covered with an incrustation of *salærat*, and much of it is deposited at the bottom.

Our march to-day brought us in sight of the Red Hills, where we made our encampment for the evening, about a mile from the road, below an alkali swamp and mineral spring. The water at this spring is very cold, and its taste that of stone-coal. There were other springs also passed, and were considered very deleterious, the taste being extremely disagreeable.

This was the first day we had observed that the cattle of the emigrants were dying, and it was a lamentable sight to see these fine animals lying along the road, at distances of not more than a few hundred yards apart; and in one instance I saw where an entire team had been stricken down where they stood linked together to commence their daily work. From the Platte they were constantly met with along the road, in large numbers, until we arrived at the valley of Bear river, a distance of 200 miles, when they began to diminish, much to the gratification of the emigrants.

The death of these animals was attributed, by many, to the drinking of alkaline water. There were several causes, doubtless, combined, to which it might be ascribed; the change of atmosphere, which had become dry and sultry since leaving Fort Laramie; the drinking of impure water when much heated, after a hard day's drive over a dusty road, filled with alkali. As emigrants along this route commence to increase their marches, being often compelled to do so to arrive at a place where grass and water may be obtained, and for fear of not arriving at the end of their journey before the fall, they travel with much more rapidity than the condition of their teams should justify.

Our horses fared very badly this evening for grass, as there was none of any importance, and what little they did get was trampled down by the horses of the first division and cattle belonging to emigrants who were

still ahead of us. While on the prairie, between Forts Leavenworth and Kearny, there was no portion of the route but what grazing could be had at any moment, though much better in some places than at others; but such is the formation of the soil, and its extreme sterility, that you are compelled to travel sometimes a whole day before getting to a spot where you can find the least quantity, and these places this spring have been so frequented that the grass has been entirely consumed. Our march was eighteen miles over a very dusty road, but we were compelled to stop here, or go further and fare even worse. The camp was pretty well supplied with wood, as we procured as much as we required for the night.

July 7.—The command left at seven o'clock, and struck the main road two miles from our encampment of last night. We continued our journey over a rolling country, entirely barren, having no scenery to interest one in the least, until we arrived at the Willow Spring, where we found, for the first time to-day, a small stream of fine, pure, cold water, which came from the head of a small ravine formed by several hills. The spring takes its name from the number of small willows about it, and along the gorge where the water passes. A number of emigrants had collected at this place, where some of them had been for several days.

This water was, by far, better than any the emigrants had met with since commencing their journey, and they seemed disposed to make the most of it before moving forward. We found a large number who had encamped and taken their cattle over the hills about four miles to graze, where they represented it to be better than at the last encampment, or any since crossing the North Platte. This is not to be taken as any proof of good grazing, for that was not to be found among these hills; but being in the vicinity of good spring water, which seems to be valued so highly by these people, the grass that was found was better than nothing; and, in their estimation, the want of quantity was made up by the quality of the fine, cold stream which gushed from the base of the hills, and, increasing as it passed through the gorge, finds its way along the hills and through these dry plains, until it reaches the Platte, to which we had now bid adieu for the last time, our course leading to the northwest, while the Platte soon turns to the south.

After winding up the gorge and ascending a very long hill, a new scene broke upon our view. We could easily see the spurs of the mountains that formed the Sweet Water valley, while others ranged to the northeast, forming, with the Wind River mountains, still further to the north, a large and extensive valley. We had a very fine view from this peak of the adjacent country in every direction.

The Sweet Water valley was beautifully marked out by hills until it reached the Platte. The country to the north was interspersed with mountains and valleys, while that to the east presented a broken and uneven country, entirely sterile, the whole destitute of wood, which to scenery is so indispensable.

It was too early in the evening to stop at the spring, and we continued on to Greasewood creek, which comes from the Wind River valley, and encamped for the night. Several places were passed in the evening, but the water was too impure to encamp: they were nothing more than alkaline bogs. Our horses were taken about three miles from our encamp-

ment to graze for the night, and carefully guarded by the teamsters, who were responsible for their loss. From among them a guard was formed, whose duty it was to keep watch all night, under the direction of the wagon-masters and agents. The extra-duty men were also required to perform the same duty, which, after walking, and frequently working pretty hard during the day, to be required to stand watch was sometimes found to be severe duty, and a little more than they had contracted to perform.

I found in a range of hills a fine specimen of coal, which I was unfortunate in losing before arriving at Fort Vancouver, on the Columbia river. The country from Deer creek to the Sweet Water river, I have no doubt, abounds in coal in great quantities. It is found on the left bank of the Platte at the Mormon ferry, and up to this place the hills bear every sign of it. The specimen I obtained to-day showed a very fair quality, and I think it might be obtained in great quantity here. The distance of country travelled over, where coal may be seen in places, is about forty miles, and no doubt continues entirely across to the Wild River mountains. The train came in this evening in very bad order; many of the teams completely worn down, and several of the mules had given out.

In this day's march of twenty-two miles there were not less than fifty dead oxen passed on the road. The grass in every ravine was eaten to the ground, and the earth presented a frosted appearance from the deposits of alkali; nothing but wild sage and the greasewood shrub were to be seen all over the country.

The wind through the day blew very hard, and the dust was so thick at times as to hide the whole division; both men and animals suffered very much, particularly the teamsters, who were unable to avoid it. I required the wagons to be kept some distance apart, so as to escape as much as possible the heavy clouds of dust that were constantly kept up through the whole day. It was very cold during the day, and, the wind sweeping over the snow-capped peaks of the Wind River mountains, which were not far off, made it as unpleasant as if it had been the middle of October. No wood was to be had on this stream but the artemisia and greasewood, which were used, and answered as a very good substitute.

July 8.—Last night was very cold, and a good fire of oak wood would have been very acceptable. The morning was clear, and it continued cold. We got off at 8 o'clock, and after passing along a level but sandy plain for eleven miles, arrived at Independence Rock, which had been the theme of conversation with us since leaving Fort Laramie. It was a spot often spoken of by those who had passed before us, and known as a great resting place, and made somewhat noted by emigrants who had been fortunate enough to be there on the 4th of July. We expected to have reached it this year by the 4th instant, but, from unforeseen circumstances, were prevented from doing so.

It is immediately on the Sweet Water river, leaving only sufficient room for the road to pass. It is of granite, and about five hundred yards long, one hundred and fifty wide, and forty yards high. It stands entirely isolated, at the east end of a small valley, formed by it and the adjacent hills and mountains. This rock bears the name of almost every one who can take time to carve or write his name on it. There is nothing very



NORTH EAST VIEW OF INDEPENDENCE ROCK AUG. 9TH 1849



NEAR VIEW OF THE DEVIL'S GAP.





remarkable about it, except that it is not frequently the case you meet with so long a mass of rock without the least vegetation on it of any kind, as you find in this case; and then its position makes it somewhat remarkable, looking, as it were, like some huge monster rising from the ground.

Our encampment was made about a mile above the rock, on the bank of the river, where we overtook the first division, which was much exhausted by the very fatiguing march of the last three days. Many of the mules had broken down, and were compelled to travel so slow, that the second division had gained one day, since leaving the Platte, on it. This division encamped above us, at the Devil's Gap, until the 10th instant, when we all moved about five miles up the river, and beyond the mountain that makes across the valley.

The grazing was pretty good along the base of the mountains. There were several alkaline ponds in this vicinity, which by evaporation had become dry, leaving their beds well covered with alkali, which had very much the appearance of snow. I procured several specimens, which I carried through the whole journey, and brought them safely home.

This day's journey was extremely disagreeable. The wind seemed to collect between the openings in the mountains, and came upon us with all its fury, blowing the dust and sand, mixed with alkali, into our faces and eyes, until it became insupportable. Several persons had their eyes very much affected by it; my own suffered very severely, and have never recovered from it to this time.

The scenery about the valley of Independence Rock is very beautiful; the mountains, though not high, are very picturesque and pleasing to the eye. The valley is about four miles long, made by small ranges of mountains to the north, and high hills to the south, covered with a few dwarf cedar and pine. It has to the west a spur of the mountain, through which the river passes, and small disconnected hills to the left, which give a distant view of the scenery beyond.

The Sweet Water can be seen quietly running towards the mountain, through which it passes with a great deal of violence, between perpendicular rocks, which are several hundred feet high, and, resuming again its natural current, quietly flows through the valley, until it mingles its crystal waters with the muddy stream of the Nebraska.

July 9.—The day was very pleasant, except the wind, which, blowing as usual, created a great deal of dust. As we remained here to-day, the 1st division train was placed in a condition to continue its march; repairs and alterations were also made to the 2d division, so as to enable it to move with as much ease as possible. The condition of both trains greatly required it, as our march to Fort Hall was to be a long and tedious one, being 400 miles distant, and the teams becoming weaker every day.

In this vicinity game is generally abundant; one of the clerks killed an antelope near our camp this morning, and I found the meat extremely fine; though much like venison in flavor, I think it even better. This range has been very good for buffalo, but the valley along the Sweet Water being very narrow, they have been driven off by the emigrants, and could not be seen without going too long a distance after them.

The mountains about here abound in mountain sheep, which are often

seen among the high rocky cliffs, but, being extremely shy, are hard to shoot. Several of our party, who were acquainted with their habits, went into the mountains in pursuit of them; and though unsuccessful, they brought into camp several antelopes.

The camps of the emigrants now began to bear evident signs of their condition. Provisions of every description were lying about in piles; all surplus baggage, which had impeded their march, and assisted in breaking down their teams, was now thrown away; their wagons were broken up to mend others, while some were left along the road; their loss of cattle was daily increasing, and it seemed very doubtful whether many of them would ever reach Oregon or California.

These people were very fortunate in having got rid of the cholera so early; we had seen no cases since crossing the North Platte, as the last one which occurred among us was at Crooked Muddy creek, eleven miles from the Mormon ferry.

CHAPTER IV.

Our march continued with the third division until arriving at the last crossing of the Sweet Water river, 62 miles.

July 10.—The two divisions were ordered to move at 12 m. Having made preparations, we crossed the river, and took the road which leads over the rising ground and passes between the hills and the terminus of the mountain which forms the Devil's Gap. This gap is truly wonderful, being a space not over twenty yards wide, and about five hundred feet high, having very much the appearance of being chiselled out by the hand of man, rather than a work of nature. It seemed very extraordinary, upon examination, that there should be so near this great opening a fine wagon road, as the distance from the gap to the terminus of the mountain is not half a mile; but such are the singular freaks of nature that we so often meet with.

We encamped this evening about six miles above the Devil's Gap, through which we had a fine view of the valley just left. Our mules were put out to graze, and were well guarded by such teamsters and extra-duty men as I could place confidence in.

We saw lights this evening in the mountain, not more than two miles from us, which were evidently made by deserters, who kept the disaffected portion of the command aware of their movements. Desertion had become so frequent of late, and the repeated threats of what they intended to do, which we were kept advised of, that it became very necessary some course should be adopted to put a stop to their running off; for we had ample proof that many of these men had enlisted for no other purpose than to get the means of reaching California. There was no portion of this regiment now with it who had served with so much honor to themselves while in Mexico, as they had been disbanded immediately after the termination of the war; and the regiment at this time was composed of raw recruits—many of them foreigners, who scarcely knew enough of the English language to understand an order when given to them.



DISTANT VIEW OF THE DEVIL'S GAP ON SWEET WATER RIVER.



The Colonel issued a proclamation at Independence Rock, offering a reward of two hundred dollars for every deserter that might be brought back. On reaching Fort Bridges, five of these men were turned over to the command, having been caught by the trappers in the mountains near that place. Although it did not entirely stop desertion, it had a tendency to decrease the number, as we lost but a few at the South Pass and Soda Springs, where the trails for California leave the Oregon trail. The idea with these men was to attach themselves to emigrating parties, after passing the South Pass and Soda Springs, as a guard, simply for their subsistence, after getting clear of the command. But by the time the emigrants arrived there, it was as much as they could do to subsist themselves until they reached California, without being encumbered by men who, having violated a sacred oath by deserting the service, could hardly be expected to keep a promise made them. The emigrants, generally, gave no protection to them; on the contrary, they were ready to assist us in apprehending them, and frequently gave us information which was of great importance.

July 11.—The 1st and 2d divisions left camp at 7 o'clock this morning. The 3d having been required to overtake us, did not arrive until very late last night, after a fatiguing day's march of nearly twenty-eight miles—by far too great for the condition of the animals, and the country through which they were marching. As several of the wagons did not arrive until after 9 o'clock this morning, it was deemed necessary to permit this division to remain here one day to rest their teams, and overhaul the train, as they had had no rest since crossing the river, and the length of time which they were occupied there having thrown them entirely in the rear and out of position.

Provisions being required by the command that left this morning, which were in the train of the 3d, I forwarded them on, in compliance with instructions given; but, broken down as the whole train was, it would not have been a loss of time to have remained for one day longer. I, however, despatched them as soon as they were prepared, and reported the condition of the teams to the Colonel, remaining behind myself to superintend the alterations that were necessary to be made to enable this division to leave in the morning.

The day was taken up in overhauling the stores and carefully examining them, which I found in a very deranged state, as the loads had been taken out while crossing the river, and very much scattered among the train. Having completed the necessary preparations, we were again ready to resume the march in the morning.

The night was quite cold, but calm, which was very different from what we had experienced before arriving at Independence Rock, for the wind had blown night and day incessantly. We procured as much wood as was necessary for our use from the base of the mountains, where it was collected in small quantities. The greater part of our journey having been over a country entirely destitute of wood, I observed that the troops seemed to adapt their wants very much to circumstances, and seldom made any talk about the scarcity of fuel.

Since leaving the Platte we had again passed through a dreary, hilly country, in many instances very sandy, meeting with nothing in the

least interesting to the traveller, being destitute of vegetation, except the artemisia, which was seen from the highest hill to the lowest valley, now and then interspersed with alkaline ponds, which were greatly dreaded by the emigrants. This unpleasant sight, as well as dusty roads, windy weather, bad water, and nothing for our animals to feed on, made us hail the sight of the Sweet Water with feelings of pleasure and gratification. This stream, though small, is very beautiful. It rises among the Wind River mountains, and, after running over 150 miles, empties into the Platte about thirty miles below this place. We were now to travel along its banks for a hundred miles, never leaving it far enough to prevent us from making our encampments on it in the evening, until we arrived in the vicinity of the South Pass, where the road crosses the river, and leaves it for the last time.

I look on this river as the salvation of the traveller who is fortunate enough to reach it. The water is clear, and fine in taste, and runs quite rapid over a firm, sandy bottom. Its banks are very low, and generally well covered with good grass, but this season it had been consumed by the animals of the emigrants who were still ahead of us. The road winds along the river, crossing and recrossing it in many places during the day, and affording us an opportunity to make pleasant encampments on its banks in the evening.

July 12.—The morning was pleasant, and we got off at half-past six o'clock, and shortly after left the river, where our road passed over a very heavy sandy trail throughout the day. It was towards the close of the evening that we came in sight of the high peaks of the Wind River mountains, where they were barely seen to the northwest, and, being capped with snow, looked like white clouds rising above the distant hills.

We were now getting among the mountains which border the Sweet Water; and although detached from each other, they form a complete range when viewed at a distance. The scenery to-day was very beautiful, although our road passed over a very sandy and poor country. High cliffs were to be seen, with a variety of forms and colors, giving to the eye something pleasing to rest on, instead of fields of artemisia, regaled by its unpleasant odor, which is thought by some to resemble that of camphor and turpentine—a scent by no means agreeable at any time, still less when we reflected that we were to have but very little else until we arrived at the Cascade mountains, on the Columbia river.

In our march to-day we saw a large number of cattle which had perished since striking the Sweet Water. I saw one emigrant who had lost four yoke of oxen, and was, with many others, going ahead with their packs on their backs, trusting to chance to reach California. They had dreamed of the gold region too long to be discouraged by the loss of a few animals, and seemed to be satisfied that they would be able to reach the "diggings" in a very seasonable time. This I very much doubted, for they had then nearly a thousand miles to travel, and no means of carrying their provisions longer than a day or two, and were compelled to keep in the vicinity of trains to get a supply.

We travelled to-day eighteen miles, making our encampment again on the banks of the Sweet Water, where the grass was extremely scarce.

July 13.—It was calm, and every sign of a warm day. We got off at

six o'clock, and passed along the side of a high cliff, which intercepted every particle of breeze, giving us the full benefit of the rays of a July sun. This day's march was through a country which in soil was very much the same as the one of yesterday. We were partly hemmed in to-day at times by rocks which seemed to be piled one above the other until they reached a height which would justify their being called mountains. These high peaks are of granite formation, and, having but little soil, are covered with a small quantity of dwarf cedar and a few scattering pine. They are seen on the distant plains and valleys, forming a landscape which is very pleasing to the eye. Here, the river winds around the base of these high cliffs, frequently changing its direction at right-angles, and leaving scarcely space enough for wagons to pass.

After passing one of these gorges through which the river runs, the road leaves it for a few miles, and crosses between two ranges of cliffs, whose sides were much broken and made rugged by the effects of time. I came to a place where mountain sheep were seen leaping from rock to rock with as much ease as if they had been on the plain below. Discovering the party which approached them, they soon bounded out of sight, running over the rocks with the greatest ease. It would be but a few minutes before they would return again, apparently with an additional number, and, after looking over the precipice, would again disappear, seemingly amused at the labor of those in pursuit of them, who were struggling among the rocks to reach the top of the cliff.

From the top of these peaks the view of the surrounding country was very beautiful. Many parts appeared rolling, other portions presented plains extending for miles, while in other directions it presented wide valleys and deep ravines. It was from the top of one of these cliffs that the range of the Wind River mountains could be seen in all its beauty, and the whole scene was one of grandeur, which is seldom met with on this route, for the scenery generally is not very prepossessing.

Throughout the day it has been very warm and dusty, and the road very sandy in places, causing much fatigue among our mules and horses. We witnessed the same unpleasant sight to-day in the loss of animals as we had heretofore, and the emigrants were in great danger of being left on the route without the means of travelling.

About five o'clock, p. m., we arrived again on the banks of the Sweet Water, and encamped about two miles above where the trail crosses the river, and near a point where the river breaks through a high ridge, forming in its passage a steep bluff which prevents the wagons from passing; and the road here leaves the river again, and does not strike it for nearly a day's march. The grazing was very indifferent, though better than where we crossed the river.

July 14.—The mules were getting very much jaded, and every day's march seemed to affect them very much. At the commencement of our journey this morning we travelled along a ridge about three miles, which was extremely sandy, and the artemisia rocked our wagons from side to side until the strength of the wheels was well tested. We struck the road at the head of a low, alkaline marsh, which may be looked upon as a natural curiosity. It was at this place that, by digging into the ground about twelve inches, we came to a bed of excellent ice, which was very acceptable to us.

There is nothing very peculiar in the appearance of this place. The ground is low and boggy, with a number of cold springs oozing from its sides, and spreading their waters over the marsh, which soon absorbs it, as there is no outlet, except in very heavy rains. I saw on the borders of the marsh a great quantity of this never ending alkali, and pretty good grass mixed among large patches of the rush; but being thought to have a deleterious effect on the animals, and being in many places very miry, it was avoided. The ice lies in a bed or strata but a short distance from the surface, which is easily procured, and is probably one and a half inch in thickness.

The bog is in a plain or small sandy valley, very much exposed to the rays of the sun, and one of the warmest places found near the Sweet Water river.

The road two-thirds of the day passed through a low, sandy plain, and not a tree to give us the least shade, and we found it extremely sultry and warm. Every one, therefore, who could stop at the ice bed, did so, and furnished himself with as much as he could conveniently carry. We arrived at the Sweet Water again about two o'clock, and halted for a few hours until the train should come up. I crossed over a high ridge during the morning, which brought me on a very elevated plain, and after travelling about five miles I came again to the Sweet Water, and followed up its banks until I overtook the division.

To the north the table land seemed to be very extensive, until the view was intercepted by a high range of bluffs, which was broken in many places, giving a view of the valley beyond, which extended to the base of the mountains far to the northeast.

It was our intention to have stopped when the trail crossed the river, but there was nothing to be found for our animals to eat. We continued our march over a range of hills about six miles further, where we struck the river, and overtook the other two divisions. The place where we stopped, at 2 o'clock, had been made a general resting place for the emigrants. Here were wagons lying in every direction, old clothes—from an old hat to a pair of boots—cooking utensils of every description, and a variety of articles too numerous to mention, scattered about, as if there had been a general break-up in camp. It was high time, for many of them had started with an idea that two thousand pounds could be carried without the least difficulty, nor could they be made to believe to the contrary until it was found almost too late. I had seen the commencement of it some distance back, but along here gave full proof of the general feeling among them. In the afternoon I ascended a hill, which gave me a much better view of the country than I had witnessed to-day. We had been fast approaching, for the last few days, the high hills to the west, and from this position it seemed to be the principal range, the rest disappearing into uneven table land. The view to the north and east was very fine, as the outline of the plains and valleys was very distinct, while the Wind River mountains to the north, which we were rapidly approaching, presented a very picturesque appearance. The distance travelled to-day was about twenty-two miles. The weather for the last few days was dry, although warm in the middle of the day. This morning was beautiful, and, although chilly, was very different from that



which I had felt in Mexico when approaching mountains covered with snow. There we have the mornings very cold, and the middle of the day extremely warm.

July 13.—The two divisions left this morning at 7 o'clock, leaving the 3d to continue its march after resting one day. It was at this encampment I commenced to break up wagons for the first time, to repair others, as all our timber had long since been used up. The day was occupied in shoeing horses, mending harness, and making such alterations as might be necessary and proper to facilitate our movements.

Since the rains ceased, and we had reached a dusty, uneven country, the wheels of our wagons were very much affected by it, and in many instances rendered almost useless, as the tires were constantly falling off. Having no wood to re-set them, I resorted to the plan of calking, and found the wheel to be much better than those which had been re-set; and I would advise any one who may be required to travel over a prairie country, where wood is scant, to provide themselves with the proper materials, and they never will be at a loss to repair their wagon-wheels for the road in a few minutes. On this march we have frequently been compelled to stop a wagon in the train, and resort to this mode, which was soon accomplished and the wagon off again; whereas, without it, we should have been compelled to have abandoned the same.

The country along the river about here had become very hilly, and approached the banks of the river so close as to force us among the hills, which was very fatiguing. The country was entirely barren; not a tree was to be seen of any importance, and but very few willows on the banks of the river. It was at this encampment that we found a very cold spring; and from the formation of the ground, compared with that where ice had been procured, I have no doubt but what the same could have been obtained here, as the water had the taste of ice water instead of clear spring water.

July 15.—The division, after passing up the river this morning about two miles, turned into a narrow gorge, which, gradually ascending for several miles, brought us to the top of a very high, level country. The river passed through a narrow, deep chasm a short distance above, where the road diverged from it, and was not touched again until the end of the day's march. About the middle of the day we passed a rapid stream from the Wind River mountains, a tributary to the Sweet Water. Here we found snow on its banks, which had drifted in a large pile in the winter, and was at this time at least six feet thick, forming a solid mass of ice.

It was cloudy through the day and drizzled a little, which made it better for travelling, although somewhat cold and disagreeable. We were now quite near the Wind River mountains, as we could see the snow falling from the clouds which hung around their peaks. In the afternoon our road lay over a level country, having the mountains to our right, and the high table-lands to our left. In the fore part of the day we passed two small valleys, which were very sterile, there being but a very scant covering of vegetation about them. We met with many springs in this day's march, which gave us delightful water, and are always acceptable to those who travel and often become much fatigued from the effects of

the dust and sun. We arrived again this evening on the Sweet Water, after a march of twenty-five miles, where I made my encampment on its banks for the last time. As I considered the train in good condition to travel with those in advance, I determined to go forward early in the morning and join the 2d division again.

July 17.—Having obtained an escort of four men, under the command of Lieutenant Russell, we left at 3 o'clock in the morning, to overtake the 2d division, which was now one day in advance of us. We were detained some time in crossing the river, as the morning was dark, and did not get over before 4 o'clock, where the road diverges from it to touch it no more, and we soon reached the plains which form the South Pass. There were none of the party but who seemed to regret leaving the banks of this little stream, where we had passed since the 8th instant many pleasant nights.

We soon came to the South Pass, which had nothing to mark it except the Pacific spring, near a range of high hills on the left of the road, with an alkaline marsh to the right, where the water collects into a small stream which runs to the west and unites with the Pacific ocean through Green river, the Colorado of the west, which falls into the Gulf of California.

We passed through a barren, sandy waste, slightly rolling in places, and extensive plains in other parts of it, until we were compelled to stop on the banks of the Dry Sandy, in consequence of several of the mules giving out. We had made a march of twenty-two miles, and were still some distance from the second division. At this place water and grass were very scarce, and both men and animals fared badly. We found it very warm throughout the day, which made it very disagreeable and fatiguing to all of us.

July 18.—We commenced our journey this morning at 5 o'clock; it was pleasant, but every indication of a warm day. We had now passed the Snow mountains, which made the temperature very different from that experienced a few days since. There was much less wind, and it seemed to be moderating very fast.

The road passed over precisely the same sandy country that it did yesterday, and we arrived at the Little Sandy in the fore part of the day, where we found many emigrants—some were lying by, while others were looking for their lost cattle, which had left them during the night and returned on the road many miles. These people could give no correct information of the advance; and it was not until we reached the Big Sandy that we learned that the two divisions had taken the Fort Bridger route, and that we were on Green Wood or Subblet's Cut-off. As it was impossible now to return and overtake them, and this being a much shorter route, I determined to follow this trail and intercept the command on Bear river. We therefore passed down the Big Sandy about three miles, where we made our encampment, having travelled eighteen miles to-day.

The grazing at this place, although indifferent, was considerably better than for the last few days, being a little out of the direct route either way, and, therefore, less frequented. Our horses and mules fared finely for both water and grass, compared with the scanty allowance which they got last night; for what few sprigs of grass they could collect along the borders of the dry bed of the Sandy were pretty well filled with alkali, which lay

upon the ground like a white frost in a cold fall morning. The little water which they got, also, at the same place, indifferent as they found it, was drunk for the want of better, and to allay a burning thirst created by the warm march of that day over a very uninteresting country. The contrast was great, and we could not but enjoy our present condition this evening; for even the sound of the waters of the Big Sandy, as it ran rapidly by us over its pebbly bottom, seemed to have a charm in it, as it tended to lull us quietly to sleep, as we lay close upon its banks, brooding over our present and future condition until we should meet the regiment again, which might not be for a week or fortnight. About 9 o'clock at night we were awakened from our sleep by the hailing of a person on the opposite side of the river, who proved to be Lieutenant Howland, who had been as far as Green river in pursuit of deserters, and gave us the intelligence of the arrival of an express from Fort Vancouver to the colonel. The expressman was left at Green river and despatched to the lower crossing, on our arrival at that place, by Lieutenant Howland, his horse having given out, which prevented him from following the command with the letters.

July 19.—We left this morning at 4 o'clock, and struck across the plains, taking the trail to Green river. There was nothing of any importance observed—the whole country from the South Pass to Green river being one vast plain. It is bounded by the Wind River mountains to the north, and to the west and southwest by the Green River mountains.

We stopped to-day at 1 o'clock to rest our animals. As to grass, there was none to be obtained. The middle of the day being very sultry, we did not commence our journey until 7 o'clock p. m., when, after travelling all night, we came to the ferry on Green river about sunrise in the morning, and encamped on the opposite side.

The night's march carried us over a very sandy plain and through several deep hollows, which gave us some trouble to ascend. Immediately in the vicinity of the river, the trail passes down a very steep hill into a deep, sandy gorge, which runs to the Mormon ferry, and was very severe for several miles on the mules. The moon shone nearly all night, making it pleasant and much better for travelling than in the day.

From the time we left the Big Sandy until we arrived on Green river, we met with no water, having marched, through the day and night, a distance of fifty miles without it. This route is generally known as the desert—a very appropriate name, if I may judge from its sterility and dryness, for a more barren region cannot be found between here and the Columbia river. The South Pass, being surrounded by mountains and high ranges of hills, may be looked upon as the great plain or dividing ridge which separates the waters of the Atlantic from those of the Pacific, for it is at this place that the waters are seen flowing in opposite directions. The soil is extremely sandy, poor, and barren, and has not one favorable feature to recommend it.

July 20.—The wagons were ferried across, and, after making our encampment, the whole of the animals were taken about six miles back of the hills to graze on a small stream which empties into Green river above us, where the grass was pretty good.

There are two ferries here, which are only temporary. The Mormon ferry is about five miles above where we crossed the river, and at the foot

of a range of high clay bluffs, which we passed to reach this ferry. The country on the right bank of the river is very hilly. On the opposite side there is a range of bluffs, very much washed and broken into gullies. The banks of the river are low and thinly covered with cotton-wood, but about the same quantity that I found upon the North Platte.

July 21.—We remained until two o'clock p. m., before leaving for Fontanel's Fork, about six miles distant. In the forepart of the day we were engaged in getting across the six ox teams, which, it will be remembered, started from Fort Laramie at the same time with the command. They were directed to continue their march to the same place where we contemplated stopping, and there encamp.

A slight shower to-day made it pleasant, although hardly sufficient to lay the dust. This was the first shower we had seen since the 25th of June; and, as the country through which we had been travelling since leaving Fort Laramie was of a very light clay soil, it may naturally be supposed that we had suffered very much with dust for the last four weeks.

After getting under way, our road passed down Green river for a few miles, where it turned into the hills and ascended the top of a high range, where we had a beautiful view of the adjacent scenery. On the opposite side of the river the country was high, but level. To the north of us, and in the direction through which our road lay, it was extremely hilly and mountainous. From the top of this ridge we descended into deep ravines, which wound around hills, crossing other ridges, until it arrived on the banks of Fontanel's Fork, where we found good water and better grazing than we had met with since leaving Horseshoe creek, on the 26th of June. We made our encampment here for the night—not alone, however, as the banks of the creek were lined with emigrants, who were recruiting their cattle after marching across the desert without grass or water. We now seemed to be getting out of the alkaline country, as there was less on this stream than any I had met with before; certainly much less than on the Sweet Water. The country around us being entirely destitute of wood, we were compelled to resort to the artemisia, which may answer as a substitute in warm weather, but a very poor one in winter, as it burns out rapidly, without leaving any coals or embers. We were now getting out of the range for game, as buffalo are seldom seen now in great numbers this side of the South Pass, although I was told to-day by an old hunter that he had seen the hills over which we were travelling covered with them a few years since; but since then they had begun to diminish, until scarcely any were to be met with this side of the South Pass.

The emigration to Oregon, since 1845, had tended to drive them from this section of the country, as it has done throughout the route. I saw but very few buffalo signs while passing through the plains in the vicinity of the South Pass; but, during the three days while travelling across to Green river, antelope were seen in large numbers. Deer have been very scarce since leaving the South Fork of the Platte; and although we are now in the far west, where we might expect to meet with game in great quantities, I have seen more deer in one day's travel in western Texas than I have met with in the whole of my journey. I have recently

met with many antelope, but, where they are found in great numbers, I have seldom come across many deer.

July 22.—The emigrants were early in starting this morning, having been here some time; besides, they were required to travel a long distance to-day before reaching a good encampment. I did not get to water before 12 o'clock, which I found among the hills in a small gorge; where I saw a grove of hemlock for the first time, also the aspen tree, neither of which were in great quantities. The water was very fine, being near the snow, which had drifted on the sides of the hills over which we had to travel. We stopped here until the arrival of our wagons, that were yet some distance behind. Having got in rear of a long train this morning, they were necessarily detained.

While here I passed over the hills and among the valleys, which were quite extensive, for the purpose of looking for game; while returning, I came upon a fine elk, but, from a want of a proper knowledge of hunting them, and not being a very expert huntsman, he soon got wind of me. Frightened at my sudden appearance, he stopped for a moment, when, raising himself in all his mountain dignity, he bounded off over the hills, and was soon out of sight.

Our wagons having arrived, we continued our march over spurs of mountains during the evening, which made a greatcoat very comfortable, so great was the change of the temperature. We soon began to descend, until we reached the valley, and continued our way until the close of the evening. It was very unpleasant this evening, as the wind blew hard, and was accompanied by hail, which lasted but a few minutes, when it cleared off as the sun went down, and became very cold through the night, making a fire very comfortable. Having provided ourselves with a good supply of wood from the mountains, it enabled us to pass the night very pleasantly. This day's march brought us over a very hilly country, particularly in the afternoon. In the forepart of the day it was on a ridge, where the light clay produced a dust which was almost insupportable. We were fortunate in reaching a place where good water and grass could be procured, as we had travelled twenty miles, and our mules had become very much fatigued, so much so as to compel me to leave one on the road. Our encampment was very well selected, being at the base of a range of mountains, where we were able to get as much dry cedar and pine as we required.

July 23.—After travelling over a number of spurs of the Green River mountains yesterday evening, which run parallel to each other, forming small valleys, it was not done without giving us much fatigue, but, although feeling it very sensibly, we were ready to renew the journey this morning. We started at 5 o'clock, keeping a high range on our right until we arrived at Thomas's fork, where we passed around it, and came into the road which crossed the mountain near our encampment this morning. We passed up the valley for a short distance, when we crossed it about 12 o'clock, and ascended a high hilly country, that was very much broken by deep ravines, seen in every direction, having in them, and on the sides of the hills, small groves of cedar, hemlock, and aspen, where we had an abundance of wood, water, and grass, and made our encampment at 5 o'clock p. m. for the night, after a fatiguing day's journey of eighteen miles.

July 24.—We started at 6 o'clock this morning for Bear river, over mountains and valleys, and probably the most hilly or mountainous part of the route we had travelled. We arrived on its banks at 2 o'clock in the afternoon, much to our gratification, for we discovered that the troops had not yet passed, and, in all probability, would not for several days, which would give us an opportunity to rest, for we almost stood as much in need of it as our animals.

The road from the South Pass to Bear river was to us a very fatiguing march, having crossed the desert without grass or water, and for the last four days had been travelling over the most mountainous country which we met with throughout the whole distance. The greater portion of the route between Green river and Bear river is but one series of mountains and valleys, where you are constantly rising and descending throughout the day, but it is well watered, and good grazing is frequently met with. Wood is found along in small quantities, scattered about on the distant mountains, while small groves of the aspen and hemlock are seen in the ravines. The whole distance since leaving our encampment this morning has been over mountains, and well watered by fine springs, running from the hills and ravines. This range continues until you arrive at the valley of Bear river, and the nearer you approach it the more broken the country becomes. Our encampment was made for the night immediately on the banks of this river, and, fortunately for our horses, the grass was better than any we had seen since leaving the prairies.

CHAPTER V.

March from where we struck Bear river to Fort Hall, on Snake river, 78 miles.

July 25.—We had now fairly arrived in the great valley of Bear river, which had been so much talked of by us; and it is a fine valley, in some places three miles wide, and well watered by Bear river, which empties into the Great Salt lake, after having passed through a mountainous region for many miles. We were now to travel along its banks until we arrived at Soda springs, where the Oregon trail turns to the north, and the river makes a bend to the south, more abruptly than where the trail leaves the North Platte.

The valley of Bear river varies in width from three to five miles; in many places, however, where the river passes through the hills, it becomes very narrow. Grass is found in great abundance on the river where the bottoms are wide; but this year it is nearly all destroyed by the emigrants, who are scattered along the river as far as the eye can see. We changed our encampment-ground to-day, and travelled down the river about eight miles, crossing Smith's Fork, a small mountain brook, which falls into Bear river, probably a mile from where it enters the valley; here it passes between two high bluffs, about 400 yards apart, having taken its rise to the eastward among the mountains.

We encamped about 12 o'clock, and remained through the day, hoping

to hear from the command, who were ahead of us one day's march, at the Big Sandy; since then we had stopped two days at Green river, and our days' marches between the two rivers were of a medium length, the country being too hilly to justify long marches.

The mountains in this vicinity are entirely destitute of wood; small quantities of cottonwood and willow are now and then seen on the river; the willow seldom grows over two or three inches in diameter before it decays; and on Smith's Fork, as well as other small streams which fall into the river in this vicinity, there is also cottonwood and willow, but in no great quantity or size.

There is no tree in the forest which grows more luxuriantly in the South than the cottonwood tree. Every island in the Mississippi and Missouri rivers is covered with it, and it is the same with the ravines and streams in a northern latitude. If cottonwood is not to be found on them, you may expect to see no wood of any kind except in the mountains.

July 26.—The morning was clear and cold; ice was seen one quarter of an inch thick. Since arriving on Bear river the nights have been very cold, as I have found them since leaving Green river; for, while crossing to the two rivers, ice was formed about our tents every morning. I regret that I was unable to keep the exact temperature through the twenty-four hours, having been so unfortunate as to break my thermometer some distance back, and could not procure one from the command.

We commenced our march at eight o'clock for Smith's trading-house, which is about thirteen miles distant. I crossed Thomas's Fork, and left the river shortly after—travelling over high hills and through deep ravines very similar to the country which we had passed over two days previous to arriving on Bear river. We arrived at the trading house about two o'clock, after a very warm, dusty, and fatiguing march. I here learned that the difference between the route which I had taken and the one by Fort Bridger was not less than ninety miles, which would make a difference of at least one week; I therefore determined to await their arrival in this vicinity, and let our horses and mules take a long rest, as they had performed good service, and stood greatly in need of it.

It was to be regretted the command did not cross Green river where we did, as it would have given the horses and mules one week's rest on this river, which they had been standing in great need of since arriving at Independence Rock; the other route was probably less mountainous, but the grazing was not better, and the distance saved by crossing Subblet's Cut-off would have justified their taking it. Being provided with kegs, water could have been carried across the desert; and it is frequently the case you can get it by digging at a place which is about twenty-five miles from the Big Sandy, and the half-way point between the two rivers, which is easily known from the little valleys that are seen about there, and the deep hollows but a short distance beyond.

July 27.—I remained here during the day; the mules were sent some distance among the hills to graze. Mr. Smith, the trader, visited us, and was extremely kind to our party, having a fine beef killed expressly for our use.

Since arriving at Green river, I observed a great change in the soil

among the mountains and ravines. We were now getting to where a fine, short grass was to be found on the sides of the hills and ravines; although not very thick, it was considered very nutritious, which I presume must be the case, as our animals would leave the bottoms and climb to the top of the highest hills to hunt for it.

July 28.—The morning was clear and cold. I left this place at 8 o'clock, and made my encampment three miles down the river. Our animals were taken to the opposite side, and guarded with Smith's horses, being much safer with them than by themselves.

We were now among the Snake Indians, and were visited by a chief to-day, with a party who accompanied him. They expressed much friendship for us, and great pleasure in meeting with white people who had come a long way, not to make war upon them, but to protect them also from any aggression from those who were passing in great numbers through their country, and whom they pretended to stand much in fear of.

It was, like all Indian speeches, made more for the purpose of exciting sympathy and extracting presents than from the existence of any real fear upon their part. I learned, however, from Smith, who has been a trapper for twenty years in the mountains, and much of the time with them, that they have evinced every disposition to be friendly with the emigrants while travelling through their country, and will continue to remain so if not molested. They are a quiet race of people, who seem to have no desire to make war, but ready to redress wrongs when any are inflicted on them. They were once a powerful nation, but, like many others, have been broken up and much reduced by still more powerful tribes further north.

It was here I met with Rocky-mountain horses for the first time. They are stout, well-made animals, not so large as our horses, but very muscular, and formed to endure great hardship. Nearly all the young men were out hunting, and those who seemed to be intrusted with the care of the horses could not be persuaded to dispose of one of them at any price. They were in excellent condition, having the full range of the mountains, where they were guarded by small boys who are learned to handle a horse and throw a lasso with as much skill as a Mexican.

The chief appeared to be very much pleased at our arrival, and came daily to visit us, accompanied sometimes by all his family. This generally took place about the hour of dining, when they all appeared to have good appetites, judging from the quantity of meat that was consumed. The young boys, who were not over seven years old, brought us great quantities of fish for a few trifling presents; they consisted of the brook and salmon trout, which are found very abundantly in this river, as well as all the mountain streams between here and the Columbia river. They were extremely fine, and the first I had seen since coming into the mountains. Having but little to do while remaining here, we resorted to fishing, and were very successful, keeping our mess very abundantly supplied with the finest kind.

Game in this section of the country is scarce, compared with the ranges passed over on the route. We had now gone nearly through the whole buffalo range, as but few are now met with on Bear river. Fifteen years ago they were to be seen in great numbers here, but have been dimin-

ishing greatly since that time. Antelope are found, though not very numerous. Elk and the grizzly bear are more abundant, and increase on the range between here and California. Both are found in great numbers in California, where the grizzly bear grows to a very large size. It would seem that the climate is much better adapted to them there than further north, as they are not very plenty about the Columbia river. I had two pair of elk horns with me—one procured this side of Fort Laramie, and the other at Smith's Fork, which were considered pretty fair specimens, but not near so large as some seen in the range of the Salt lake.

July 29.—The weather continued very pleasant. The mornings were cool and clear; the middle of the days I found very warm, but not oppressive. As rain seldom falls here during the summer, the evenings are pleasant till after sundown, when, like the early part of the morning, they become cold.

There was nothing passed worthy of note to-day. The six ox teams that we left near Green river arrived to-day, with a loss of one wagon; the oxen had been distributed among the other teams, which had aided them considerably in their march. They appeared to be in tolerably fair condition, and I was satisfied they were able to reach Fort Hall before the command, as they now had several days the start.

I left at 4 o'clock p. m., and, after travelling about eight miles, encamped for the evening on a small stream which is formed by several springs coming from the base of the mountains.

July 30.—We changed our encamping ground this morning by travelling down the river six miles, where we stopped for the day.

I despatched a man to ascertain if any information could be obtained of the troops, and was much gratified to learn that they had arrived in the vicinity of Brown's trading-house, on Bear river, and would reach me the next day. This was very agreeable news to all of us, for we had been quite long enough absent, and my anxiety had become very great, for I was aware that the movements of the command depended entirely on the train, which could only be kept in order by great care from all connected with it; but I was consoled by knowing that in my absence Lieutenant Frost and the agents would leave nothing unturned to keep everything in good order, which would tend to facilitate the movements of the command.

The day was passed in wandering over the mountains in pursuit of game, and, although scarce, we succeeded in bringing in a fine antelope, which came very apropos, as our stores were nearly exhausted, being entirely out of sugar and coffee, and very nearly out of meat. The command, therefore, came up in good time to prevent us from proceeding on to Fort Hall, as we should have found it necessary to renew our supply of provisions.

July 31.—Last night was extremely cold for the time of year; ice and frost were to be seen this morning, which chilled our horses and mules, and prevented them from improving as rapidly as they would have done if the nights had been more mild, as we had now got to where grazing was very good and clear of alkali.

The whole of this valley is well watered by small streams from the mountains, which are made by springs that are found in numbers along their base.

The land in many places along the valley is sufficiently level for irrigation, and would doubtless produce very well, as it is of a dark clay soil, lies very light, and could be cultivated without much trouble. The springs are, however, very backward here, and winters set in early, when snow generally falls very deep. This may tend to impede the growth of vegetation, and, as the summers are very dry, without irrigating the lands they might not produce well. Those who have attempted to cultivate this soil, not being successful, believe that it will not produce; but this is by no means a proper test. I am fully convinced that, by carefully irrigating the soil, it will yield as well as any I have travelled over.

August 1.—The mules, being loose last night, were very hard to catch this morning. This is generally the case with these animals; and where the trains are large and grass scarce, it is all-important that they should be hobbled, as much time is lost in the morning in preparing the teams for the march, when it is sometimes all-important that every moment should be saved.

We commenced our march at half-past seven o'clock, and soon left the river, and passed over some small hills and across a few bad places made by the little streams from the mountains, and did not strike it again until one o'clock, when we reached the Soda springs, which had been made the theme of conversation among us for many days. The road which we had been travelling had scarcely produced any variety, and we were very desirous of reaching a place which had become so noted among all who have passed here as the springs.

Here is the commencement of volcanic signs, which the surrounding country so plainly presents, and the river for the first time begins to draw within high banks of basaltic rock. The springs are but a few miles from where the river sweeps around a very high peak, which on that side seems to be the terminus of a mountain range, and, after winding along the south among the mountains and hills, it finds its way to the Great Salt lake, about forty miles from here.

There are quite a number of springs here, which are certainly a great curiosity; they occupy altogether a space of about a mile and a half, and are bounded by the river on the left side, and a high range of mountains immediately in rear of them, which is partly covered by cedar. When you come in sight of the place, two mounds are first seen, which are probably twenty-five feet high; they are of a whitish cast, resembling decomposed lime mingled with the oxide of iron. On the top of one of these mounds, and along its side, the water rises in a small natural basin, and seems to be stationary, and through which gas slowly escapes. The taste of the water is somewhat metallic, and by no means pleasant, compared with the springs in the bottom and immediately in the vicinity of this place. One of them is perfectly dry, and both have a hollow sound as you walk or ride over them. There is a beautiful stream of water which comes from the mountains, and, passing through a fine, rich little valley, sweeps round the base of one of these mounds, and, after running through a cedar grove near them, falls into Bear river about half a mile below. On the side of this stream several springs are met with, which are not only cool, but so strongly impregnated with gas that the taste is very much like that of soda water. I procured several bottles of it, and

kept it some time, and found it very refreshing to drink ; it was also used in making bread, and was a very good substitute in the place of saleratus.

Previous to arriving at the mounds, we passed a large spring of clear cold water, which bursts from the ground and forms quite a stream in a very short distance ; it is very pure, and not in the least impregnated with gas. Not over a hundred yards from this spring there is another, the water of which has a metallic taste, and gas is constantly escaping from the bottom, and differs very much from the spring found in the stream a short distance off.

After leaving the mound and descending the river about half a mile, you cross the stream already referred to, and come to several springs and small ponds, where the water emits a very disagreeable odor. As you pass on there are several small mounds seen, some of an oval form, while others are conical, which are composed of the sediment that doubtless came from the springs when in existence. On the left side of the road and the bank of the river there is another spring, where a little stream puts in, which is very strongly impregnated, and the gas effervesces in great quantities, that can easily be heard as you approach it.

Having continued my journey for a short distance to a point where the road passes over a small hill, my attention was drawn towards the river, where many of these small cones are standing, and differing materially in colors ; some are white, and others mixed with the oxide of iron. I saw some of a beautiful chrome color, of which I procured several specimens.

It was at the side of the river, and at this place, that I saw the celebrated spring generally known as the Steamboat spring. The water seems to rise from out of the river through a tube of cylindrical form of the carbonate of lime, which is about three feet high, where you hear a rattling noise, not unlike the escaping of steam from a steam pipe. It is not loud, but such is the similarity of the sound that it has received the name of the Steamboat spring. The water here appears to be forced up by the pressure of the gas below, which, escaping at intervals, creates this peculiar sound. The taste of the water is said to be much the same as the other springs in the bottom, but to my taste it was more metallic, warmer, and not so highly impregnated with gas.

Many of the mounds that are now dry have been broken to pieces by emigrants, prompted more by idle curiosity than any desire to obtain information as to the cause which produced them.

Having gathered several specimens, which I carried throughout the journey in safety, I continued my march towards camp, which was made about two miles beyond the spring, and a short distance from where the river turns to the south. At this place we were near the mountains, where we procured as much wood as the command stood in need of for the night. Water from the river was obtained from the only spot where the banks in this vicinity were low enough to admit our horses to water ; here the river sinks between perpendicular banks of basaltic rock, which are at least a hundred feet high.

The valley about here is finely watered, not only by the river, but by the little stream which passes the springs that have already been mentioned. Lumber can be easily obtained from the mountains on the opposite side of the river in great quantities, which would answer very well

for building purposes should it be required, and it is the only place on the route where it is found so convenient, except that in the neighborhood of Deer creek. Wood for fuel, immediately in the rear of the springs, on the mountains, can also be procured without much trouble; and this neighborhood probably produces the best pine and cedar which are met with between the Missouri and the Blue mountains. Grazing about here is generally very fine, particularly in the small valley through which the stream flows, and hay could be procured from it in great quantities for winter purposes.

This place is immediately at the point where the two trails turn off for California and Oregon, and within a very short distance of the Salt lake. It is also but eight days' march to the Sweet Water, beyond the South Pass, where, on the whole route, early in the spring, mounted troops would be abundantly supplied with fine grass if it became necessary for them to take a summer's campaign. Besides all this, it is no doubt, a very healthy place, and I know of no two places better calculated for the establishing of military posts than Deer creek and Soda springs; but as two sites have already been located, it is hardly possible they will ever be changed, as neither, probably, will be required to be kept up any length of time, as the Indians between here and the Dalles are an inoffensive race, who will never be disposed to molest any party as long as troops are on the Columbia river.

I regret that we were prevented from remaining longer at the springs, as it would have given us an opportunity of examining them more closely, it being impossible to learn much of them in so short a time. I can say, however, it well deserves the name of "nature's great laboratory," where the earth beneath us is but one great furnace, in which so many gases are engendered, and come forth through the fissures of the earth (that has been rent asunder) to mingle with the pure atmosphere of the surrounding mountains.

August 2.—The morning was cold, and, although not cloudy, the atmosphere began to resemble an Indian summer, which always gives to the sun a yellowish, sickly hue; but we had every indication of a fine travelling day. It was here we were called upon to part with many of our travelling companions, who had accompanied us over the greater portion of the route, and with whom we had passed many pleasant hours; but they were now about to take the road which leads to California, while our trail turned to the north. Dr. White, from St. Louis, who had been employed as surgeon to one of the divisions, and who now holds the distinguished position of speaker of the House of Representatives in California, left us, with his amiable and accomplished family, at this place. Colonel Keuen, the present attorney general of California, also left us here. It was, therefore, like commencing a new journey to part with so many pleasant companions; but, after giving each other a hearty shake of the hand, expressing a hope that we might meet under more favorable auspices, we parted, and soon found ourselves turning to the north, and winding our way up a wide valley, which brought us at the close of the evening to the Port Neuf, a stream which rises in the mountains a short distance from where we encamped, and falls into Snake river about fifteen miles below Fort Hall. The road to-day lay along a valley which

comes from the north. We met with no impediments, except one or two swampy places, which often cause much detention to large trains.

At the commencement of our journey this morning, I passed across a valley towards three high hills, situated some distance apart, and entirely isolated. They bore evident signs of having once been volcanoes, but now entirely extinct. The inner side of the crater showed the effect of recent heat, and the lava, or cinder, lay in great quantities about the valley; and although I had no time to devote to procuring specimens, being constantly required with the train, I gathered some of the cinders, and brought them safely with me, intending them, with the specimens gathered at the Soda springs, the American falls, on Snake river, and the Hot springs, at Malhem river, for the National Institute; also with other specimens obtained from the inner side of the crater of Popocatepetl, near Puebla, in the republic of Mexico. That about the bend of the river reminded me of the country near Contreras, in Mexico. In this valley there are many fissures, differing in width and depth—some of them are narrow enough to step across, while others are much wider—at the same time making the surface so rough and uneven that it was very difficult to force my horse through it. In other parts of the valley, the earth is extremely spongy and light, and easily beaten into dust when travelled on. This, however, is very much the case with the whole route from Fort Laramie.

The great mass of emigrants ahead of us had now turned off on the road to California, as our trail bore no great evidence of having been much travelled this season; and we began to feel as if we were getting towards Oregon. It was fortunate for us it had been so little travelled, for we were soon to enter a country, on Snake river, that was entirely destitute of grass to the Cascade mountains, a distance of 700 miles.

Several large ponds were passed to-day which were very similar to those at Soda springs. I observed one or two places which emitted gas, and the water tasted very much like the springs heretofore mentioned. In this day's journey we made twenty-three miles, encamping where both grass and water were extremely fine. The hills now began to get scarce of wood, but the small dry willows always found on the banks of these little streams answered as a very good substitute, in place of better.

August 3.—The command left this morning at 6 o'clock. This day's march was entirely among the hills, as our road, after crossing a very miry swamp, passed along some distance the side of a hill, and entered a gorge, which, after winding around the base of the hills for some time, began to ascend, until the animals were completely broken down, as well as ourselves. The day being warm, it was felt still more so among the surrounding hills, which seemed only to admit a slight breeze to create a dust that became almost insupportable—being often so thick as to hide teams and wagons, as the drivers at times scarcely knew in what direction they were travelling, and left it more to the instinct of the animals than to their own judgment. Our encampment was made about 6 o'clock this evening, in a small ravine among the mountains, and on a small brook coming from a fine spring near by, which gave us delightful water, that was extremely refreshing after so dusty a ride. The hills were covered with small groves of aspen, and the tops of the mountains were in many places interspersed with cedar and sugar-loaf pine.

The second division overtook us, having travelled yesterday about thirty miles, and twenty-five to-day. This had the effect of breaking down many of the mules, which must always be the case when persons not connected with the department have the entire control of regulating the days' marches. On long journeys like this, where we travel over a country unknown to any excepting the guides, it is often the case that too much latitude is given them to regulate the distance to be travelled. If they feel a desire to travel twenty-five miles to reach a place where grass and water can be had, the command is generally required to travel it, when, by a little trouble on their part, it might be procured by shorter marches. On the route to the South Pass, I would have wanted no better guide than the Mormon Guide Book, which I found to be very exact throughout that distance. It has noted down every hill, valley, and stream you meet with, stating with great precision the several points where good encampments could be reached, and the distances between each place. We had but few along, and it is hoped, for the benefit of emigrants, they may become more freely circulated.

August 4.—We commenced our journey to-day for Fort Hall, which was not more than an ordinary day's march; but the fatigue of the teams of yesterday, and the heavy, sandy road that we were to pass over between this and Fort Hall, made it very doubtful if we accomplished the distance to-day, being twenty-two miles.

The first division left the encampment at 6 a. m. The morning was cold, and as clear as you generally find in this country; but being calm, it indicated heat in the middle of the day. We descended a long hill, which brought us into a sandy plain, which extends to Fort Hall, and on the banks of the Port Neuf, which, after taking a circuitous route through the hills, strikes again the road at the base of the hills which we had just descended, making it eighteen miles from our encampment of the 2d. We continued along its banks for some distance, when it diverges from the road, and, passing through the plain, reaches the Snake River valley, where it falls into that river, about fifteen miles below Fort Hall.

Throughout the day the sand was very heavy, and the middle of the day extremely warm. The train during the day became, in many instances, completely exhausted, and at sundown we were just entering the valley of Snake river, Lewis's Fork of the Columbia river—being compelled, from necessity, to leave some of the wagons on the plain until the next morning, the mules having become too much exhausted to get them along.

As you cross the valley to approach the river, there are many small streams to pass over, where the banks are miry and dangerous, and rendered still more so in proportion to the number of wagons that had passed over them. It was, therefore, very late in the evening before the regimental train got into camp, and the supply train also—so much so as to compel me to park the latter on the banks of a very miry pool until the next morning; for to have attempted to pass it in the night would have endangered the wagons. This was in sight of the command, which had nothing to do but to ride forward in the morning, and rest quietly until the arrival of the two trains in the evening. It was a very severe day's march, and, though not a long distance, was felt by the whole command,

even by those who had but very little to do, and were therefore very little exposed.

August 5.—The morning was pleasant, and presented, as usual, a smoky atmosphere. I gave orders to commence crossing at daylight, so as to reach camp as early as possible. Several wagons were still on the road, but were brought in during the morning.

We had now arrived at Fort Hall, our last resting-place; and such was the condition of the trains, which were destined to carry us a distance of seven hundred miles further, before any aid could be obtained after leaving here. These were the same teams which, from their condition at Fort Kearny, induced me to call for a board of survey, being fully satisfied that their condition did not justify the hope of our arriving with them at our place of destination without great trouble and loss of property. It was now important to reorganize the whole train, by leaving such animals as were unfit for present use and unserviceable wagons at Fort Hall, which was to be occupied by two companies of the rifle regiment that had recently arrived.

The regimental train was the most injured by the march. The drivers, being enlisted men, were entirely ignorant of such duty, and took no interest in learning, or even improving the condition of their teams. Having found among the train that had recently come up a number of very fine mules, it enabled me to refit once more the whole train, together with what I had, and place them in a condition to commence the long journey which we still had before us. The best drivers were taken from Fort Hall, and substituted in place of the soldiers for the regimental train. The most indifferent teamsters of the supply train were paid off, and others left at Fort Hall, to be discharged as soon as they received their pay. We were therefore kept busily engaged through the day in making preparations to renew the march.

August 6.—The morning was calm and pleasant, and, although cloudless, was, as usual, smoky. We had now entered a country entirely different from that we had recently travelled. We were approaching the Blue mountains and the Cascade range, which are constantly on fire during the summer and fall, as well as other mountains that are thickly wooded; and the sky in this vicinity presents a hazy appearance, caused entirely by the smoke from the burning mountains, which increases to such an extent as to hide the neighboring hills as we advance. This gives to the sun a yellow hue, and the day the appearance of an Indian summer. The weather was fast changing, and felt more like autumn in latitude 37° than that which should have been experienced in latitude 45°.

We were busily engaged to-day in making such alterations and improvements as remained unfinished yesterday, and succeeded in preparing the first division, so as to leave on the 7th. We entirely overhauled the public stores, and made a report of their condition, leaving such as were unnecessary for the march at this post.

This day was a very busy one, and my clerks, as well as myself, were extremely fatigued when we retired to rest at eleven o'clock at night. All resting days for the troops are generally the reverse for staff officers; and there was none of us but what were glad always to commence the march again.

It has often presented itself to my mind very forcibly how little is known of the fatigue which is felt by the members of that portion of the command who are always looked to for the success of the daily marches, or the accomplishment of a journey; and it is to be regretted that the labors of the day, as well as the responsibilities, could not be more equally divided and felt by all.

While laboring during the day in superintending the movements of large trains, particularly through mountainous passes and broken countries, I have come into camp completely overcome by heat, covered with dust, and exhausted by mental as well as bodily labor, and I have heard those around me, whose duty was but little more than to go forward and luxuriate on the banks of some pleasant brook until the arrival of the train, speak of their fatigue as if they had in reality been called on to perform some laborious task. Who is it on a march like this experiences trouble but the one who is always looked to for the preservation of the means which is to insure success, who must always be diligent and watchful over all around, be the trouble what it may, trusting but little to any one, but on his own untiring zeal and industry for the safety of all.

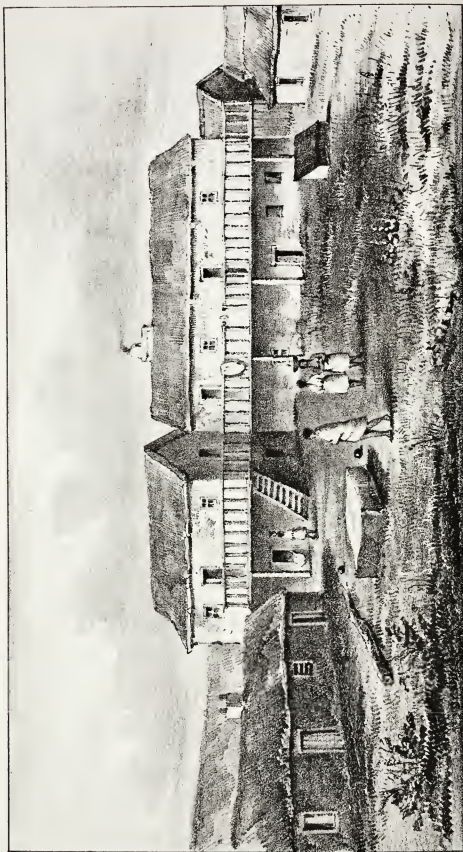
August 7.—All necessary arrangements being made for the first division, the march was renewed at 12 o'clock. The day was passed in completing all unfinished business, and preparing the second division to follow in the morning. Reports were made to the chief of the department, as well as to Colonel Mackay, at St. Louis, suggesting the propriety of furnishing the acting assistant quartermaster at this post with such instructions as might be deemed necessary for his future guidance; for when I left St. Louis, I received no orders relative to the several posts that were to be located, neither were any instructions given me while on the march. What orders the colonel had previous to starting I know not, and I therefore could not give any definite instructions which might be proper to regulate the officer in charge of the department while building quarters for the companies left, either here or at Fort Laramie; I, however, gave such instructions as I thought the most proper, presuming that, on the receipt of my report at St. Louis, Colonel Mackay would give such orders as he might deem advisable. We retired this evening to rest at half-past eleven o'clock, after riding, walking, and writing throughout the day and much of the night, having again completed a new train, which was to last us to the end of our journey, there being now but two divisions instead of three. One of the companies was left, but another was taken from here, which still made the number of companies the same; but the decrease of provisions and stores had greatly diminished the supply train, and it was thought advisable to concentrate the troops the remainder of the journey.

CHAPTER VI.

March of the two divisions from Fort Hall to Fort Boisse, 303 miles.

August 8.—The morning was pleasant, and the second division commenced their march at 10 a. m., and encamped on the Port Neuf, about eight





Engraving of Fort Hall, 1811

INSIDE VIEW OF FORT HALL, ON SNAKE RIVER, OR LEWIS FORK OF THE COLUMBIA RIVER.





Engraving by J. H. Johnson, 1855.

OUTSIDE VIEW OF FORT HALL, ON SNAKE RIVER, OR LEWIS' FORK OF THE COLUMBIA RIVER.

miles from here. I left at two p. m., and passed Fort Hall, a trading establishment of the Hudson's Bay Company. This place is about three miles below where two companies of the rifle regiment have chosen for the site of their new post. It is built of clay, and much in the form of Fort Laramie, having a large sally port, which fronts the Port Neuf, with its walls extending back towards the banks of Snake river. There is a blockhouse at one of the angles, and the buildings inside are built against the side of the wall, and of the same materials. The main building is occupied by the proprietor, while the others are intended for store-rooms and places for the hands who are employed in the service of the company. The rooms are all small, and by no means comfortable; being generally intended for one person, they are contracted and dark, having but a small window and one door.

This place is occupied by Captain Grant, who has been here about fourteen years. He informed me that he had endeavored to cultivate the soil, but to no success. As they seldom have rain during the summer, the ground becomes very hard and baked, transpiration water from the river not being sufficient to keep it moist. The ground presented to me a fine, dark, alluvial soil, and by proper cultivation would produce well. I have seldom met with any of the traders, however, either on the Upper Mississippi or this route, who have turned their attention to agriculture enough to speak with any experience or certainty on the subject.

There are along the river small quantities of cottonwood, particularly in the vicinity of where the two companies are located. With the exception of this advantage, I do not admire their location for the post: I presume the troops, however, will not be required to occupy this post very long, as it seems to be out of position, not being able to draw properly the necessary supplies for it from either Fort Leavenworth or Vancouver; for, while the former is 1,400 miles land transportation, the latter is upwards of 700 miles, having the Cascade and Blue mountains to pass over, which are very formidable barriers; and the whole country is a dreary and barren waste, where there is but little or no vegetation.

There is very good grazing on the prairie or bottom-land about here, and around in the vicinity of where the post is to be established, which is four miles above, and the same point where our command struck the river. Here the troops are able to procure as much hay as may be required by them; but in this country it is expected that the horses will be hardy enough to endure the winters by running at large and grazing on the bottom-lands.

The two drawings of the outer and inner side of Fort Hall, or the trading-post of the Hudson's Bay Company, will give you a correct idea of their rude construction, and I find but little difference in any of them on the route to the Columbia river.

Having left Fort Hall, I joined the second division about five o'clock, and divided the train into sections, and assigned the several wagon-masters to their respective places, and was again prepared to commence the journey for Oregon City, or the Dalles on the Columbia river.

August 9.—The morning was quite cold. The command left at half-past six o'clock, and crossing the Port Neuf, soon ascended a steep bluff which borders on the plain, that is about five miles wide, where the road

runs along the bluff, giving us a fine view of Snake River valley below, which is wide and much cut up with small streams, either rising from springs on the side of the bluffs, or from springs which are found boiling up in the valley, sending forth water in such quantities as to soon form large streams; and the valley, from the top of the bluff, presented a beautiful view, as the road wound along, compared with the surrounding country.

We had now fairly commenced the remainder of our journey to Oregon City, with the best outfit we could procure from the materials obtained at Fort Hall, and were to pass through a more dreary and barren country than heretofore, a small specimen of which had been before us during the day.

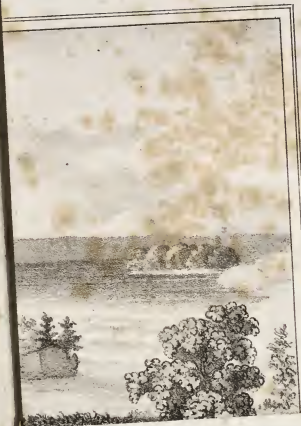
From the bluffs to the range of hills which runs parallel to the left bank of the river, about five miles off, the land is a poor, light, barren soil, covered with artemisia, neither the hills nor the plains producing one stick of wood.

On the opposite side of the river the country is a vast plain, and, with the exception of the Three Buttes, which are high peaks standing alone on the plains, but give a little variety to the scenery, there is nothing to be seen in the distant view but artemisia, which is always present to the sight, let the eye turn in any direction it may. The picture, on the whole, was anything but a pleasing one; and when we reflected that we were to travel several hundred miles through a country presenting nothing more pleasing than barren hills and sterile plains, having artemisia to burn, as well as food probably for the animals, it was certainly very discouraging.

A journey of seven hundred miles at any time, where everything is plenty, is no small undertaking; and still greater must it seem to be to us when we had travelled constantly for three months, and had only accomplished fourteen hundred miles, two-thirds of our journey, over probably the most uninteresting route which can be found on the northern continent. But stout hearts and willing dispositions to brave difficulties were able to accomplish many hardships, and to make impossibilities possible; and, when I reflected on the fatigue which had been endured, and likely to be renewed again, I began to think that, if we reached our destination safely, nothing in the way of travelling hereafter can be looked on as impossible. We continued the march during the day through dust half-leg deep, for we had now struck a soil that was so light and spongy as to make it dangerous sometimes when riding over it. The mornings and evenings are exceedingly keen, while the middle of the day is very warm. We suffered severely from the heat to-day, and find that we experience the two extremes of heat and cold during the twenty-four hours.

We made our encampment at the close of the evening in the valley of Snake river, having entered it for the first time, and, I may say with truth, the last time where grass is to be found on its banks in any great quantity.

August 10.—The morning being pleasant, the march was resumed at the usual hour. Our encampment last evening seemed to be the terminus of Snake River valley, as the appearance of the river entirely changed after a march of about five miles, which brought us to the American falls. The sound of the falls was heard some time before reaching them, as the wind came from the southwest, directly from them.



the whole landscape here one of beauty and interest. Towards the close of the evening we passed many ledges of rocks, which formed a complete valley, having an outlet so narrow that but one wagon could pass



VIEW OF AMERICAN FALLS 20 MILE



S FROM FORT HALL, AUG 20TH 1849

T. Sinclair's 10th Photo



after a march of about five miles, which brought us to the American falls. The sound of the falls was heard some time before reaching them, as the wind came from the southwest, directly from them.

The scene was truly magnificent. Here was an entire change in the face of the country as well as the river. But a few miles back, we had looked on it running quietly through a wide, fertile valley, and winding around islands studded with trees; while it now became contracted to a space of not more than 400 yards, and in a short distance was precipitated over huge rocks, to resume its course through a deep cañon, the perpendicular walls of which were formed of basaltic rock.

In the centre of the falls there is a ledge of rocks, dividing the river into two parts, which has a few scattering dwarf cedars on it, that seem to spring from the crevices of the rocks, and are nourished by what little earth is found upon them. Between the right bank and this ledge, the column of water, after being whirled among the rocks, has a perpendicular fall of about eight feet; that on the left is much less, and finds its way below, by passing round and over large masses of rock that lie in its way, until it reaches nearly the base, where there is a small fall of a few feet high. While the right bank commences to rise quite high and perpendicular, the left bank is somewhat broken with shelving rocks, projecting over the water, as well as presenting many places which appear as if they had been intended as caldrons or reservoirs for molten lava, which, by some convulsion of nature, had been thrown out and scattered about the falls in small fragments, which could be seen everywhere. The inner sides of these basins are entirely glazed, as if submitted to the action of very strong heat, while others resemble very much the appearance of a surface polished by water. Many small pieces of stone were lying in different directions, which were evidently volcanic productions. I obtained several specimens of the rock, and some large pieces of obsidian; the latter seemed to be scattered in small fragments for miles around on the plain, as it could be picked up wherever you went. I here had a drawing taken, which gives a very correct idea of the falls, being considered by all who have seen it as a fine representation.

The road passed along the bluff, bending to the right, which soon caused us to lose sight of the falls. In this day's march we crossed many gorges, or deep ravines, that were very much broken, and very difficult to travel over; they are the outlets to streams from the hills, and are often very miry, and the hills which we ascend very sandy and difficult to get over.

The river to-day has been much broken up by the rapids. Since leaving the falls they are frequently met with, one of which I observed is very beautiful, where there is an island in the middle of the river about a quarter of a mile long, which seemed to be one mass of rock; its top was covered thickly with scrub oak and small stunted cedar. The rapids commenced about half a mile above it, and, forming a series of small falls, passing on both sides of the island with much rapidity and force of current, and continuing in this way for about half a mile below it. What with the growth on the island, (which in this vicinity is a very rare sight,) the beauty of the rapids, the deep cañon through which the river passes, and the surrounding scenery, so different from any passed before, made the whole landscape here one of beauty and interest. Towards the close of the evening we passed many ledges of rocks, which formed a complete valley, having an outlet so narrow that but one wagon could pass

at a time, and seemed to be the effect of some volcanic action. The right bank of the river along here rises to the height of at least fifteen hundred feet, entirely of basaltic rock, and resembles very much the palisades on the Hudson river, a short distance above New York. On the left bank the ground, although much broken, is not so rough, and there are some places where you are able to drive your train or take your horses to water.

It had been very fatiguing through the day; as there is no way of heading the ravines, they were obliged to be crossed, and we did but little during the day, except to cross one ravine to come soon to another, so that evening had passed away before we reached our encampment. After sundown, we came to what is called Fall creek, a rapid little stream, having, in the vicinity of the road, many cascades, where the water rushes from one to the other with great force, forming a very pleasing little picture. The side of the hill around which we had to pass, before crossing the stream, was very broken and sandy. On the opposite side of this little brook the hill was so steep as to require sometimes sixteen mules to a wagon, and as many men as could well get hold of a rope, to get it to the top: this will give you some faint idea of the very great detention often met with on this route, and how long the delay would be in crossing 166 wagons. It was, however, accomplished, and we reached camp after 9 o'clock at night, where we had neither wood to make fires nor grazing for our animals.

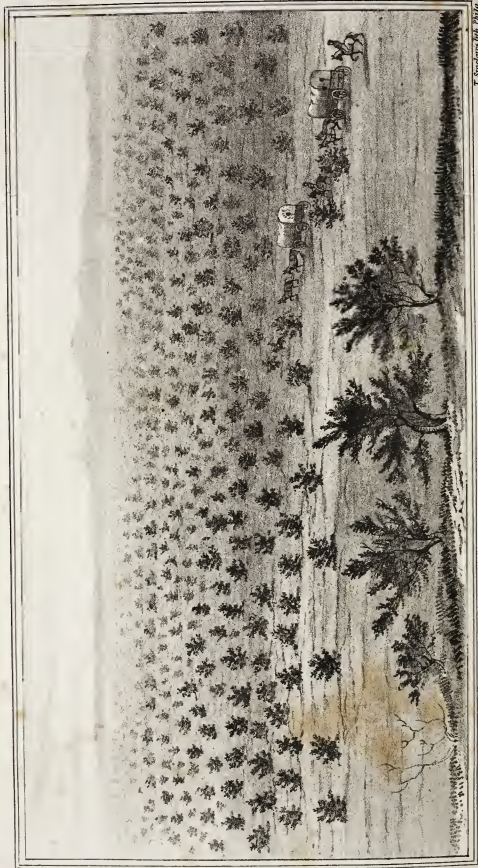
August 11.—The morning was cold, and the mules, for want of something to eat, had wandered over the hills and among the ravines to pick up what they could find, as it was impossible to keep them confined to any particular spot. This prevented us from starting early, and we did not commence our march until about half-past seven, passing through a rough gorge, and afterwards over level plains through the day. We crossed Ogden's river about 12 o'clock. The road turns off to the south for California, which was taken by the Californians who were still along; and, after passing over a plain about five miles wide, we ascended a steep hill, by the assistance of soldiers, which was the only obstacle met with during the day. Our road, take it altogether, was a good one, and our march was not so severe as yesterday; but for the dust, we should have travelled very well.

The scenery to-day was not very interesting, as the road led a short distance from the river, which intercepted the view we otherwise would have had of its singularly formed banks, which sometimes vary from two to five hundred feet high.

The mountains to the left began to show the unevenness of the country to the south and west. A range of mountains to the north, a long distance off, seeming like distant clouds rising above the horizon, began to indicate that we might realize some change for the better in the scenery before many days. This range was probably seventy miles off. A little after sundown, and after having had the teams in harness for fourteen hours, and accomplishing a march of twenty-five miles, we arrived at a reed swamp, where the mules and horses fared well, compared with that of last night.

August 12.—The morning was calm and the day pleasant. The com-





VIEW ON SNAKE RIVER OF ARTIMESIA PLAINS

mand got off at the usual hour; and, after passing around the swamp some distance, and over a plain for about ten miles, we came to Snake river again, and made our encampment for the day. The grazing was very indifferent, but the march would have been too great to have continued it to a better place; the distance which we would have been compelled to travel for water being twenty-three miles, and no intermediate point between, where we could have fared better than here.

From Bear river to this place every stream abounds in fish of the finest kind. The speckled as well as the salmon-trout can be caught in great quantities; every one who could find time resorted to his hook and line, and we fared sumptuously when we were fortunate enough to procure fuel to cook them.

August 13.—It was at this encampment that I met with a family in great distress, consisting of a man, his wife, and two little children, who had, by great labor, reached this far on their route to Oregon; their oxen had entirely given out, and they were now left alone to starve. They might have returned to Fort Hall, being only five day's journey back; but their condition was one that could not but excite sympathy, and I accordingly made arrangements to take them along. It was about six o'clock in the morning when we got under way; the Dutchman and his family were called for, who, from their movements, seemed to think that time was of little value, as they were much longer in getting themselves ready than we were willing to lose. They were ordered to abandon wagon, oxen, and baggage, taking only such articles, with their clothing, as were indispensably necessary. The woman seemed to be disposed to hang on to her wagon as her only wealth, and when brought from it by her husband, her lamentations of grief, with those of the children, were really distressing. The Dutchman took it more philosophically, although at first he was somewhat loth to leave his all, but smoked his pipe with as much composure as if he were still wandering in dreams to that golden region where his imagination had so often led him, to rear fortunes which were soon to vanish again.

We marched about twelve miles, and encamped for the day, having learned from the first division, ahead of us, that the distance would be too great to reach grass and good water; we therefore remained on the banks of Snake river again for another night, although it was desolate to look around and see what the horses were to get for their subsistence.

The scenery for the last two days was much the same, the picture being made up of distant hills, barren wastes, and wild sage, with not a tree to intercept the view.

August 14.—As the first division was not far in the advance of us, I left the second at five o'clock in the morning to go forward. The road lay along the bank of Snake river nearly all day, which still continued to pass through a deep cañon of perpendicular rock, which appeared to have been made by some convulsion of nature, apparently to give room simply for the waters of Snake river, for the country on the opposite side was as dry and sterile as on the side we were travelling.

We passed several islands during the morning, similar to those already described, which, with the rapids about them, presented quite a picturesque appearance. We here stopped for a short time, when Major Crit-

tenden, being very expert with the hook and line, caught from among the rocks, which formed small eddies, a fine mess of fish, principally speckled salmon. Our march was then continued until about four o'clock in the evening, when we arrived at Rock creek, and continued down its banks to a bend, where the road diverges, making our encampment for the evening on its banks. Our march to-day brought us about twenty-three miles over a dreary sandy plain, crossing the dry bed of a creek, where the water lay in holes. The bottom of this creek, as well as its banks, was of volcanic formation, and a solid mass of basalt. Rock creek is a small stream which comes from the neighboring hills and falls into Snake river, having for an outlet a very deep cañon, from where we made our encampment to the river. The stream itself is not more than fifteen feet wide; the cañon through which it passes is in many places from fifty to one hundred feet high, varying in width from one hundred to two hundred yards. In some parts of the cañon we met with a little willow, growing immediately on the borders of the stream; but in other places it becomes so narrow as to exclude everything in the way of vegetation. In the vicinity of our encampment the banks are low, forming a handsome bottom, studded here and there with willows, and with better grass than any we had met with since leaving Fort Hall.

The evening was very pleasant, although the day had been very warm and dusty. The fishermen, towards the close of the evening, sallied forth with their hooks and lines, and soon returned, laden with as fine Rocky mountain trout as I had met with. After having made our supper of them, which we had served up in fine style by a very excellent cook that was alone, we all turned in for rest, to be the better prepared for an early start in the morning. As I had once before got in rear a day, and found it very difficult to overtake the command, I determined not to get in the same unpleasant predicament again.

August 15.—We commenced preparing for a start this morning at 3 o'clock, but did not get off until some time after 4 o'clock, as the morning was dark and smoky. We travelled, however, rapidly for about eight miles after commencing the journey, until we arrived at the creek again. At this place we waited for our wagons, which soon came up; and having assisted them out of the cañon, which was no easy work, we continued on until the middle of the day, when we came again to the banks of the river, which were at least two or three hundred feet in height. I attempted to descend into the valley through which the river ran, for the purpose of procuring water, but it was so fatiguing, both for myself and horse, that I returned without being able to accomplish it.

It was at this place we could easily hear the sound of a waterfall, which, from the noise, we at first supposed might have been the Little falls of Snake river; but, as we were still twenty miles from that point, we were soon satisfied that it did not proceed from there, or the small cascade on the opposite bank, which is mentioned by Colonel Fremont as the Subterranean river; and we were much surprised to learn, the next day, that within ten miles of this place there is a cascade, which, in height, is not surpassed by the Niagara Falls. The guide who was with the command, having travelled this route very often, was shown the place by an Indian, and took Mr. Gibbs, of New York, and Lieutenant Lindsay to the place,



SALMON FALL, AUG. 1879.



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who pronounced it one of nature's great wonders. The river here becomes a little contracted, and passes through a chasm of solid rock; it commences to fall about a quarter of a mile above the last pitch, and, after forcing itself among the loose rocks which lay in its way, takes a perpendicular pitch of at least 160 feet, and it is even thought to be a greater height. They descended to the foot of the falls, after much difficulty and some length of time, where they were better able to judge more accurately of its great height; and there seems to be but one opinion, that it equalled in grandeur, in proportion to the column of water, the Niagara Falls. Having been the first who had ever taken the trouble to examine them carefully, and wishing to change the name said to have been given by a priest many years since, they decided on that of the Great Shoshonie falls, instead of Canadian, as being the most appropriate.

The road does not pass there, and probably its nearest point is not less than eight or ten miles, which is probably the reason why it is so little known, for I have never seen it mentioned by those who have trapped in this country for years; for their time is generally occupied, and they take no interest in riding, much less walking, twenty miles out of their way, to see a river tumble over rocks of any height; and besides, they are generally ignorant Canadians, who have but very little curiosity to notice such things.

We continued our journey until sundown, when we came to the foot of the little falls on Snake river, commonly called the Little Salmon Falls, and encamped for the night immediately on the banks of the river.

Our teams came in quite late, and very much exhausted, not having had any water since leaving Rock creek, and had travelled twenty miles since leaving that creek. This place gave the mules but very little to subsist on, being principally long, coarse, sour grass, which has but little nourishment in it at any time, and much less towards the close of the summer. The river here presented a very beautiful view; our encampment was on its banks, and immediately at the foot of the falls, which could be seen from the bend above, and until it again changed its direction below. The fall issues over several ledges of rock, which extend across the river, and somewhat parallel to each other, giving it in his fall, when viewed at a distance, the appearance of heavy waves.

The scenery is very different from what we have witnessed since leaving the American Falls. The banks on both sides, at this place, become entirely changed. On the opposite side, they take the form of small hills, which gradually rise one above the other, bringing you again to a vast plain beyond them, while the right bank presents broken bluffs, which form quite a valley between them and the river; having two small brooks that pass out of the ravine, one at our encampment, and the other three miles below, called Little Salmon creek, which runs with much rapidity, falling over rocks, and forming cascades in its way.

This was one of the severest day's marches I have ever experienced. It was excessively warm, without the least air; the hills on each side seemed, as it were, to reflect the rays of the sun so as to strike us with double force, until it became almost insupportable. Previous to reaching the bank of the river, about the middle of the day, we resorted to making a shade with our blankets, by hanging them over the artemisia shrubs,

which afforded us for the time considerable relief. The dust appeared to-day to be greater than I had experienced since leaving Fort Hall; the road was so pulverized that, by every revolution of the wheels, it would fall off in perfect clouds.

August 16.—The morning was pleasant for travelling; the atmosphere was filled with smoke, which still continued to increase as we gradually approached the Blue mountains. We commenced our journey at an early hour, and, after travelling a few miles, came to where the first division had encamped the previous evening; they having got under way previous to our arrival there, leaving a few men to collect together and take charge of the straggling horses and mules, which had strayed off among the hills, and those broken down, which were so reduced in flesh that they were constantly giving out and increasing the *cavayard* daily, which was anything but a pleasing sight to look on; for, by the additional increase, it rendered us less able to facilitate our journey.

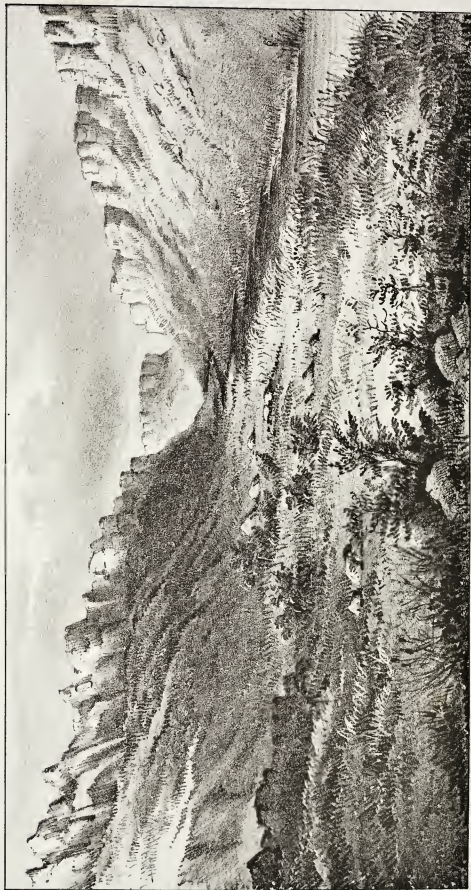
The bank on the opposite side of the river had again resumed its rocky appearance, and looked in many places as if it were a solid mass of masonry. We had not proceeded far before we came to where the water burst forth from the rocks in many places, while a pretty little stream of several feet in width tumbled from the top of the rocks, and formed a very beautiful cascade in its descent to the river; making the whole a scene of beauty seldom to be met with. For several miles water in large columns was constantly bursting from the banks of the river; which must have proceeded from the volcanic formation of the ground on the opposite side, creating fissures which received the waters collected from the neighboring hills and valleys, and, by its porous formation, finds its way in this manner through the earth until it reaches the river.

I regret that we were prevented, from the want of time and the little grazing which could be had about here for our horses, from remaining for a few days, so that we might have carefully examined the country on the opposite side, so as to have become better informed of the causes which produced this singular freak of nature.

I have annexed a drawing of the formation of the banks of the river below this, and the appearance which the river presents at this place, and almost throughout the whole distance which it passes, from the time it leaves the American Falls until it unites with the Columbia river. Through nearly the entire route this is its appearance, seldom becoming in any place low enough to allow the wagons to pass; and whenever it did occur, the distance was not longer than from five to ten miles, and often much less. The river here is seen running through a deep cañon or opening in the earth; its banks in many places are of solid rock, and when it does not take that appearance, it generally proceeded from the mouldering of the rocks from the sides, and the earth from the plains being deposited on its banks, which, covering up the detached rocks, gives it the appearance of an embankment; but I have often come on the banks of this dreary, barren, sterile river, in my daily marches, and invariably found it the same uniform canal, a spot which could not have been more uniformly defined if it had been cut out by the hand of man.

We soon came to the Big Salmon Falls, having travelled about eight miles this morning. These falls are somewhat similar to those already





Lith of F. Michelson III, Harpers, N.Y.

A VIEW ON SNAKE RIVER OR LEWIS FORK OF THE COLUMBIA RIVER.





VIEW ON SNAKE RIVER AUG. 16TH 1849.

described, except that large rocks are seen projecting above the surface of the water, against which it dashes in parts of the falls with great violence, and forms in one place a perpendicular fall of six or eight feet. It was at these falls that we met a few Indians, for the first time since leaving Fort Hall, who had assembled here to lay in their supply of salmon for the winter, as well as to subsist on them during the fall. There were twelve lodges, if they may be so termed—some of an oval form, and others of a semicircular shelter—opening towards or from the sun, as might be required. These lodges were made of green willow brush, their tops bent over and fastened together. When fresh they look not unlike a willow grove; but when the leaves become withered they resemble, at a distance, bunches of dry weeds, and might easily have been passed without being noticed. The men are good-looking and well formed, and appear stouter than the generality of Indians I have met with further north. They are thick-set and well built; there is nothing sullen about them, that you meet with among the northern tribes on the Mississippi; on the contrary, they appear pleasant and fond of talking, and, from what little I saw of them, are a harmless and inoffensive race of people. The women whom I found at the lodges were in appearance inferior to the men—I saw none who possessed the least beauty; but all that were there are principally the Root Diggers, who live in abject poverty compared with the balance of their nation: they are in fact nothing more than the degenerate portion of the Snake nation, Bonarks and Nez Percés, who prefer living among the neighboring hills and subsist by digging roots, (from whence they take their name,) than following a more noble occupation of catching beaver and hunting big game. It was amusing to see them watching for fish, as they throw a spear with as much precision as an arrow; and no sooner caught, than they would plunge into the rapids, and make for our side to dispose of it. They appeared to have but little idea of the value of money, as they sold for an old tin cup, partly without a bottom, ten times its value. I purchased as much for two cartridges as they had asked me for a blanket. Their way of estimating the value of articles is, not what its real worth would be to them in the way of war, but simply to gratify their fancy. I presume the tin cup would have made them many trinkets, compared with a piece of money ten times its value, which shows they go a good deal for quantity, and at the same time still more to gratify their taste. These people were almost in a state of nudity; the men having a covering about their hips made of rabbit skins, while the women had for petticoats dressed skins, and for robes either undressed rabbit or squirrel skins, which were a substitute for blankets.

In Colonel Bonneville's adventures, by Washington Irving, he says: "Some of these people, more provident and industrious than the rest, lay up a stock of dried salmon, and other fish, for winter: with these, they were ready to traffic with the travellers for any objects of utility in Indian life: giving a large quantity in exchange for an awl, a knife, or a fish-hook.

"Others were in the most abject state of want and starvation; and would even gather up the fish-bones which the travellers threw away after a repast, warm them over again at the fire, and pick them with the greatest avidity.

"The farther Captain Bonneville advanced into the country of these Root Diggers, the more evidence he perceived of their rude and forlorn condition. 'They were destitute,' says he, 'of the necessary covering to protect them from the weather, and seemed to be in the most unsophisticated ignorance of any other propriety or advantage in the use of clothing. One old dame had absolutely nothing on her person but a thread around her neck, from which was pendant a solitary bead.'

"What stage of human destitution, however, is too destitute for vanity! Though these naked and forlorn looking beings had neither toilet to arrange, nor beauty to contemplate, their greatest passion was for a mirror. It was a 'great medicine' in their eyes. The sight of one was sufficient, at any time, to throw them into a paroxysm of eagerness and delight; and they were ready to give anything they had for the smallest fragment in which they might behold their squalid features."

The road leaves the river at the falls, and ascends a long hill for about three miles, where, after four hour's labor, the whole train succeeded in reaching the top. Here the country to the left presents a series of plains, rising one above the other, causing the ground between them to be somewhat uneven and broken. To the north you have a fine view of the mountains which we had been approaching for several days. These were the Salmon River mountains. We arrived at the close of the evening on the top of the bluff, which was, as usual, high, steep, and rocky; so much so as almost to deprive us of getting our mules into the cañon. The rear of the train arrived about 8 o'clock p. m. The night being dark, we were prevented from getting the remainder of them down to water; they were therefore turned out to graze among the sand-hills and artemisia, there being scarcely a particle of grass either on the bluff or in the cañon. The whole day's march, after passing the falls in the morning, was over dry, barren plains, entirely destitute of water, and in places extremely heavy, and dust, as usual, half-leg deep. The mosquitoes at our encampments were very annoying to ourselves, as well as our animals, and we had been troubled with them since striking Snake river. The teams came in very much broken down, and it was as much as we could do to make daily alterations among them, so as to prevent them from impeding the movements of the command and entirely giving out.

August 17.—Every day's journey brought us into a worse country, if not for ourselves, certainly for our teams. Many of our mules had been carried into the cañon last night; the balance were driven down early this morning, after much trouble, to get water. As we had to travel sixteen miles to-day before either grass or water could be obtained, over an uneven country, or encamp where we would have to fare worse than last night, our march was commenced as early as the state of things would permit; but the whole train did not get off until 10 o'clock, as we had much trouble in collecting the mules this morning, and still greater to get them out of the cañon, many of them being unable to ascend the bluff, and therefore were abandoned.

The morning was calm and clear; the road lay over a very broken country, having to ascend high hills, and then cross deep ravines, all day; although, to look at it at a distance, it did not seem to present any of these obstacles. These ravines were frequently difficult to pass through, being

the outlet of the water from the hills and plains, and, by the melting of snows, were sometimes very much broken; and our road necessarily carrying us along near the river, made it often very difficult to cross the gullies, which were frequently met with in this day's march, for this light, spongy earth is easily washed into a very uneven surface along this river.

After sundown the train arrived at a very steep hill or bluff, where the road descends to the river, and was too much so to attempt to descend it at that time of the evening, and I therefore remained on the plain all night, as the greater portion of the train did not arrive until 9 o'clock at night. The march had been throughout the day over a country entirely destitute of water; for although the river was not far off, the steepness of its banks would have prevented us from getting at it; and, besides, the bluffs about here were very much broken. The command had succeeded in reaching the river at the termination of the day's march, and the train sufficiently near it to drive the mules into the bottom, where they could remain in safety until the morning; for they were between the river and high bluffs, which were very good barriers to their getting off.

August 18.—It continued pleasant last night until midnight, but the wind shifting to the north gave us a norther in all its fury. Those on the top of the hill got the full benefit of it; wagon-covers were torn to pieces, and our tents blown down over us, and in the morning we were completely buried alive in sand, which had drifted on the tents as they lay over us. The morning continued very windy, raising clouds of dust so thick that the wagons, in descending the hills, were completely enveloped; for the bluffs about here have very much the appearance of chalk banks, and are equally as light. It was very difficult to descend, and, in spite of all efforts to the contrary, the wagons would get such headway as to render it dangerous to hold on to the ropes attached to them. I here witnessed the capsizing of several, throwing the boxes and barrels in all directions; one of them turning entirely over, injuring nothing, however, but the breaking of a few wagon bows.

Having arrived at camp this morning, the train was too much broken down to continue our march to-day, and in consequence of it we remained here and arranged the loads, and broke up such wagons and teams as impeded the movements of the train, and turned out the mules and horses, to roam over the hills and in the bottoms to get what could be found.

August 19.—It was thought advisable to undertake to cross the river here, as grass was getting scarcer. I examined the river opposite two small willow islands, and thought it practicable, as the water in depth would not come up to the wagon-beds. The river banks were immediately cut down from one island to the other; but on going with the party to the right bank, the current was discovered to be so strong as to force one of the men imperceptibly down into the deep water before getting across, where he was soon carried beyond his depth by the force of the current, and drowned before any aid could be given him. This created a panic among some of the others, and I did not get them back to the island without considerable difficulty, and great apprehension for their safety.

Having completed cutting down the banks, one of the wagons was then tried, which, after much labor against the current, succeeded in reaching

the right bank in safety; but fearing that more property would be lost than the necessity of the case would justify, the idea was abandoned, and we remained on the left bank, trusting to our luck while travelling over what might truly be called a desert, and about as bad as generally falls to the lot of any one to be found on.

The second division had arrived in worse condition than the first, and was directed to encamp here for a couple of days, to rest, at least, the animals, and let them get what little grass might be obtained in the ravines and gorges among the hills in this vicinity.

The banks of the river now began to change their appearance, and the steep, rocky cliffs, so long met with, were in places rapidly disappearing. This part of the river was the first we had met with, since our departure from Fort Hall, where the banks would enable us to pass, if the stage of water had permitted, although we had travelled a distance of 180 miles.

August 20.—We continued our march, at 8 o'clock this morning, along the river, where the bank is somewhat sloping, until we arrived on a small stream which ran from among the hills: and we found better grazing than could possibly have been expected. The road was level and not very heavy to-day, although somewhat rocky: and as the distance was not as far as we usually travelled, the trains came in but little jaded, and, from what little grass they will be able to pick up from among the willows to night, will be better prepared to renew the journey in the morning than recently.

August 21.—The road continued along the slope of the hills for some hours, where the rocks lay so thick that we were greatly impeded in our march; still the balance of the road was not very difficult to travel over, meeting only, in some few places, with heavy sand.

We got in to-day much better than I anticipated, for such was generally the state of the teams when we left in the morning, that there was no great certainty of our reaching camp at night. We arrived about 5 o'clock in camp, after travelling twelve miles, and, to the agreeable surprise of all, we had plenty of long, coarse, sour grass, which resembles very much in appearance broom-sedge, which induced the commanding officer to lay by one day. The day was extremely warm. Being sometimes among the hills, we were deprived of the breeze, and got the full benefit of the sun, although it was very pleasant in the morning and bid fair to be so throughout the day.

August 22.—Having remained here during the day, the horses and mules were taken to an island where very good grass for this country was found, but not such as we would expect to travel horses on hundreds of miles. Such arrangements were made to-day to facilitate our movements in the morning, as are generally required after a few days' travel.

The second division came up, and remained one day after our departure. The day was extremely warm, although the evenings and mornings continued to be pleasant.

August 23.—Our march was commenced this morning at the usual hour. Leaving the banks of the river about three miles from our encampment, we passed into a deep, narrow gorge, which brought us upon a plain that gave a beautiful view of the surrounding country: to the north there seemed to be a series of plains rising gradually above each other, where a





VIEW FROM CAMP GROUND AUG 22^d 1849.

range of mountains might be seen at a very long distance ; the country to the southwest was much the same as that which we had recently passed over, being a light, sandy soil. In the whole of this view not a tree could be seen, but artemisia was everywhere presented to the eye. In our march to-day we passed a small stream of good water, and, after crossing it, soon entered a deep cañon, and continued down it until we arrived once more at the river, after which our road diverged from it, and brought us into camp towards sundown, when our animals were taken to the opposite side of the river to graze for the night. The day, with the exception of the dust, was very pleasant, and by no means severe upon the teams, and we marched to-day twenty-one miles, without any serious difficulty.

The view which is here attached is the bluffs immediately in rear of the encampment, and they are frequently met with throughout this part of the country. As I have heretofore stated, the country sometimes for miles is very level ; then again you come to places which, from the nature of the soil, become wasted, as you see in the drawing : it is nothing but clay, and easily yields to the weather.

August 24.—The morning was cloudy and extremely smoky. It became very warm and sultry in the night, and began to rain at 3 o'clock in the morning, but not enough to lay the dust. This was a very novel sight to us, as a shower of rain, of any importance, had not been seen since the 25th of June. Our guide, having been in the country many years, and being well acquainted with every stream and watering place along this route, informed us that the distance to-day must not exceed twelve or fifteen miles ; that our march the next day would have to be increased to twenty, to reach even a place where grass and water could be obtained in small quantities ; that our third day's march would be nearly twenty-eight miles, as the country was entirely destitute of both grass and water ; after that we should soon reach Fort Boissé, and there would be but little difficulty afterwards until we arrived at the Blue mountains. This was cheering news, for we greatly required a change for our teams, which were fast on the decline, and the horses of the command were no better.

We commenced the march at half-past 6 o'clock this morning, passing along the borders of Snake river for some distance before leaving it, and arrived at Bruno creek early in the evening where we encamped for the night, as the distance being short to-day, and the road not uneven, it enabled us to pass over it without any trouble. The character of the scenery in this short march was such as had been met with for several days. The bluffs along the river were much broken, and, rising one above the other, appeared, at a distance, like high hills or mountains, when in reality they are only the termination of a series of plains when you approach them.

August 25.—Last evening the wind shifted to the northwest and brought over a dark cloud, accompanied by heavy wind, as well as a little rain and hail. It lasted but a few minutes, and made the balance of the evening very pleasant ; but, as it continued to blow, it was cold in the night, and not less so this morning. With the wind, which threatened our tents, and the stumbling of the mules over our tent-cords all night, sleep was out of the question ; and there were but very few who commenced their

journey this morning any better prepared for it than they were yesterday. It was two months to-day since we left Fort Laramie; and when we reflected on the condition of the teams at that time, and the many changes which the trains had undergone, and the distance we had travelled over, as well as the great variety of country through which we had come, it all seemed to be a dream, and could hardly be realized. The journey was not yet accomplished by several hundred miles; and that portion of the route through which the road passed was considered by mountaineers equally as bad, in many places, as the route from Fort Hall to this place; and of all countries for barrenness I have ever seen, it certainly exceeds any, and I doubt if it can be equalled in any part of this continent.

We had now to march twenty-eight miles before meeting with water of any importance; and as to grass, there was none to be seen, besides passing over some very fatiguing places for the teams. We commenced the march as early as the arranging of the trains would permit, and our road soon brought us to a steep descent, and then into a valley, where we met with the only water for the day. Having crossed this little stream, we passed into a deep gorge which brought us to a very long, steep ascent, that gave us great difficulty. It required nine yoke of oxen to take up the first wagon, and the other wagons required ten mules and as many soldiers as could well get hold of a rope to bring them to the top of the hill, which they succeeded in doing after about three hours' work. I mention these facts to show the many obstacles that were daily met with about this time, when it was impossible to make any calculation for more than from one day to another how long the teams, or even the horses of the command, would last, unless we succeeded in reaching a place where we would be able to make shorter marches and procure food for them; and nothing up to this time had saved us since leaving Fort Hall but the decreasing of the loads, which took place every three or four days, and the breaking up of wagons; turning into the drove the most indifferent of the mules, and taking the best and replacing others. It may be said that the condition of our mules did not justify such long marches; but we were driven to it from compulsion, as neither water nor grass was to be had at any intermediate point; and when we were compelled to stop at night, the grazing was poor enough to create starvation among them. We were perfectly aware that the marches were much too long, but we were to travel them, or be in a much worse condition; and there was not an evening ever passed but what the agents were made to give in a detailed account of the state of the teams, and what changes might be made in order to move to any advantage the next day.

If the mules had been in good condition when the march was first commenced, and with light loads, there would not have been on the whole route any trouble; but this was not the case. Their condition did not justify their even starting for Fort Hall; and by the time they arrived there, with all the care taken of them, they were in no condition to continue a journey of over seven hundred miles, through a desert waste like that found on the banks of Snake river.

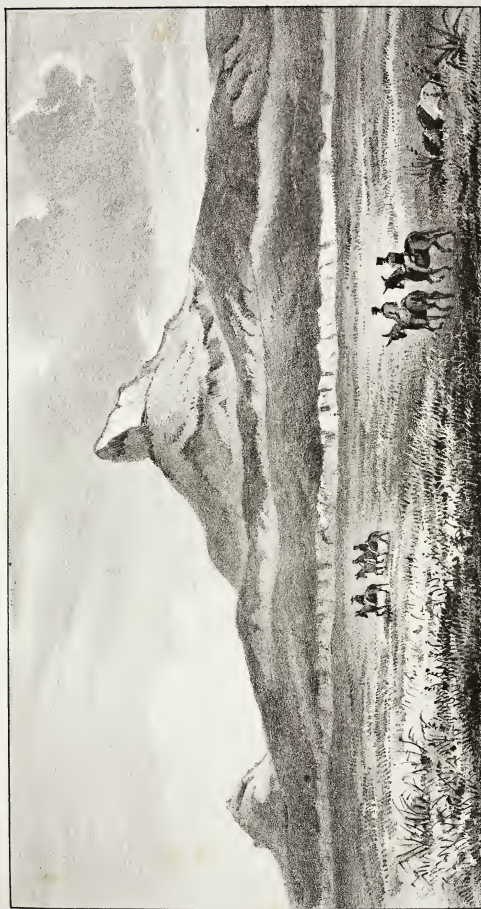
The road from here continued in many places to rise gradually, making the hauling so severe on the animals that at sunset they were completely broken down, which compelled me to stop them on a barren waste, where



VIEW OF ROCKS FROM CAMP GROUND AUG 25 1849







J. F. McPherson, all. N. W. C. 1881

VII. VIEW OF A ROCK, ON SNAKE RIVER.

neither water nor a sprig of grass was to be obtained. Here they were kept several hours, when they were again put in motion, and reached camp about one o'clock in the morning. The regimental train was compelled always to reach camp as soon as possible; but, although possessing by far the best of the mules, it did not arrive to-night until very late, and some not until the next day.

In this day's journey there was nothing of the least interest. The hills to our left were gradually increasing, and those to the north intercepted partly our view of the range of mountains in that direction. The country, through the evening, was somewhat rolling, but for several hours before arriving in camp it commenced gradually descending.

I have in many places spoken of the formation of the bluffs along the borders of the river, as well as those among the ravines through which we have passed, as being broken and rugged. The plate which is here attached is one bordering on Snake river, where we encamped, and around which we had travelled last night until near one o'clock this morning, through a small valley made by a plain, of which this was its termination, on the river and the high hills to our left, that were now but a short distance from us. The soil is extremely light, being composed principally of clay and sand, which is easily washed by the melting snows in the spring and heavy rains early in the season, and not unfrequently takes a variety of forms, which, if the imagination is allowed free scope, would soon bring forth buildings in every shape, old towers, fallen castles, and old fortresses, broken and tumbling walls, which seem to have the appearance of having long since been undermined by time, and only wanted the ivy to complete the touch. This bluff had stood many a blast and pelting storm, until it had begun to show the effects of it by the many rude, sharp peaks, and rugged breaks, which were easily perceptible, and towards the top had been so changed that its formation was not unlike a human figure, which, from its peculiar position, attracted the attention of us all.

On approaching these bluffs one would suppose that it would be impossible ever to get over them; but, on the contrary, we find that there are ravines and gorges which, after winding about them for some time, bring us to the top, where the bluffs disappear, and we find ourselves travelling over apparently a level country; and thus it has been ever since leaving Fort Hall, but much more so along here than the commencement of our journey from that post.

August 26.—The camp this morning wore a gloomy aspect; there was not one among us but felt that many more days like that of yesterday would bring us all on foot, and probably be the destruction of the trains. The Colonel therefore determined to change only the encamping ground to-day, and stop at the first convenient place. We left at ten o'clock, and found a fair encamping ground about six miles below, on a small creek, where water was found in holes, and the grazing tolerably fair. This gave us an opportunity of collecting the wagons which did not reach camp last night.

August 27.—We commenced the journey at the usual hour, travelling down the river. Through the day we passed several lodges of Indians, who were fishing; as soon as they saw us they were ready for trading,

and appeared not to be very particular as to what they got in exchange. They are, like all Indians, fond of trinkets, and care but very little as to quality. The India rubber boat which Lieutenant Jones had descended the river in for several days excited greatly their curiosity, being the first they had ever seen, and they appeared much puzzled how it could be so easily made.

In the march to-day I visited two hot springs, a short distance on the left of the road, which have not been mentioned by any one before; they are about half way between the river and the hills. The water was extremely hot—too much so to immerse the fingers; the taste was a little metallic, but it gave no unpleasant smell. From the appearance of both, I presume they come from the same fountain-head, as the one below seemed in its direction to diverge from the same point. The ground around the springs was extremely dry and light; in many places my horse would sink half-leg deep. There was no vegetation, except a few rushes that grew on the banks of the little brooks which made from them; and they were, in appearance and temperature, very much like those on Malheur river.

Our camp was made this evening on the banks of Snake river again, and about as good as those we generally met with; the distance travelled was fourteen miles, and performed much better than could possibly have been expected.

August 28.—Having made necessary arrangements last night for our march in the morning, I retired for the night, much worn down in mind as well as body. The wind began to blow, and the sky was overcast with thick clouds, which indicated a violent storm. About three o'clock the bugle gave us the signal to commence preparing for a start, and the animals were pretty well scattered; and, it being a windy morning, we had much difficulty to collect and catch them. As the sun came over the rugged cliffs, the clouds dispersed, and the day was fine, except the heavy wind, which continued to blow directly from the northwest into our faces, much to the annoyance of the whole command, but still more to the teamsters; for so great were the clouds of dust, that the trains were entirely enveloped, and it was utterly impossible for them to see which way they were driving, and could therefore only allow their teams to follow those in the advance, for it was too severe to expose the eyes to it for any length of time.

The road to-day was quite sandy and heavy, which made it, as such roads generally did, hard to get over; but, after a fashion, we got into camp towards the close of the evening, all much gratified that a short march to-morrow would bring us to Fort Boissé, where better prospects for our future march might reasonably be expected.

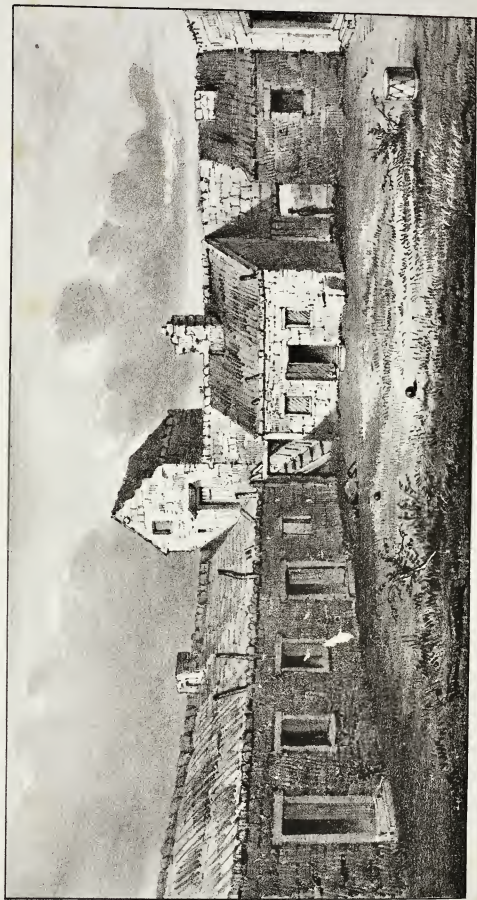
August 29.—The command commenced moving at 7 o'clock a. m., which was generally as early as we could at present make arrangements to move. The wind continued to blow all day, giving us the full benefit of dust. Soon after leaving camp the river turned to the northeast, making a large bend; the road diverged to the left, through a dry, sandy country. Throughout the day several mules as well as horses died, and some became so exhausted as to compel us to leave them behind. This was certainly not to be wondered at, when we bear in mind the state of





VIEW OF FORT BOISÉ ON SNAKE RIVER.





Look at the old castle, the Norman style

the country through which a command as large as this had been traveling, entirely destitute, I may say, of the least subsistence for our mules and horses. As to what grazing they got since leaving the bottoms at Fort Hall, or since they passed the American Falls, where the entire face of the country commences to change, it was of but little importance, and barely kept them alive; sometimes doing them much more injury than good. It is true that on our march each encampment would present some little difference, but in not more than one or two instances did we ever arrive at an encampment where we supposed they could be the least benefited; and I have merely spoken of the advantages of each encampment, by comparison with each other since leaving Fort Hall.

We arrived at Fort Boissé about 5 p. m., and encamped on a small creek called the Owyhee, about three-quarters of a mile from the trading-post of Fort Boissé, which is on the opposite side of Snake river, and immediately on its banks. This is another trading-post established by the Hudson's Bay Company, for the same purpose as that of Fort Hall. The walls and block-houses are placed at the corners, so as to protect the several sides; the sallyport or main entrance opens on Snake river, and inside of the walls the buildings are arranged around the four sides, one story high, and similar in formation in every respect. The material of which they are formed is of clay, and in dry climates makes a very excellent building, and is found to be very durable. Some of these buildings are used as storehouses, together with the block-houses, to keep their peltry; they are contracted, and by no means intended for any one to occupy who is used to the comforts of life. The engagés, however, never having been accustomed to better, are perfectly reconciled, and, so long as they get their daily food, are perfectly happy to breathe out their lives in this manner among the Indians, who to them are somewhat like what the peons are to the Mexicans.

We had been three days travelling on the banks of Snake river; the bottoms had become somewhat extensive, changing entirely their appearance, as the hills began to slope gradually, until Snake river was found once more passing through low ground, unincumbered with basaltic rock.

A gentleman by the name of Craige is the superintendent of this trading-post, and has been here for a period of thirteen years, who informed me that he had cultivated the soil a little, though not very successfully; but thought corn might be raised by planting it early in April, as the rainy season generally sets in about that time on this river. His cultivation had been principally confined to raising vegetables, and had succeeded tolerably well, except in light seeds, which required moist ground.

The view which we had to-day of the Salmon River mountains, as well as the hills towards the Blue mountains, was very beautiful; and the scenery in this neighborhood is bold and picturesque, although destitute of trees, to give it that finish which is so indispensably necessary.

CHAPTER VII.

March from Fort Boissé to the Grand Ronde, at the base of the Blue mountains, 130 miles.

August 30.—Preparations were made last night to send to Fort Vancouver, on the Columbia river, for transportation to meet us at the Dalles, as it would be impossible to get the stores and troops over the Cascade mountains with the present means of transportation. One of the guides was therefore sent by me, in compliance with the orders of the commanding officer, with instructions to return without delay, after he should receive an answer from the officer in charge of the quartermaster's department at that place.

The command started for Malheur river, about fifteen miles from here, where we were to enter a hilly country, and get better grazing than we had had heretofore, which was now so necessary to prevent our animals from starving. The move was made about 8 o'clock a. m., after which I visited the fort for a short time, where I saw about two hundred Indians, who had kept up all night a great noise until day-break; some were dancing, while others were playing a game, on which they would sometimes stake all they possessed, even to their leggins and blankets.

The road led up through the hills by a narrow gorge for about four or five miles, when it brought us to the top of them, and into a similar gorge, which looked as if it had really been intended for a public highway, (for it could not have been more regular in its descent,) which brought us down to Malheur river, without the least fatigue to our animals, early in the day, where we made our encampment, intending to make every preparation before renewing our march to the Dalles.

August 31.—The morning was pleasant after sunrise, but cold before day broke, as ice was remaining in our buckets of water quite thick until half-past seven o'clock; though the day was calm and warm at noon.

An order was issued to leave the principal portion of the train behind, with all the broken down horses and mules, to be escorted by one company left for that purpose. These preparations being required to be made, rendered it necessary to overhaul all the stores and distribute them, so that they could be carried without impeding the movements of the first division, or incumbering that portion which was to follow on after us. All necessary instructions were given by me to prepare the stores for distribution, so soon as a proper examination and alteration were made with the wagons to receive them.

The Malheur is about twenty yards wide, and comes from a lake that is found among the hills of the Blue mountains, about forty miles from here. The range of hills through which it passes is not very high, and forms a small valley, which is abundantly supplied with very good grass, particularly near the Snake river. Our horses, by ranging among the hills and valleys, were able to get very good grazing, which they so greatly stood in need of, as they were now on the verge of starvation. The river not only abounds in fish of every kind, which were caught in the greatest

quantities, but ducks and geese were constantly flying from the river to the lake, while the bottoms were filled with them.

A very serious accident occurred in camp this evening, by the wounding of a corporal, in the accidental discharge of a carbine by one of the wagon masters, which had been carelessly thrown into one of the wagons to be transported, although against orders; but with men who seemed to have but very little forethought, as was the case with many of them, we might congratulate ourselves on having no more accidents than really did occur.

September 1.—The morning was calm and very pleasant. Having commenced the unfinished business of yesterday, the stores were weighed and arranged in the two trains, by placing about 700 to 1,000 pounds in each wagon, in proportion to the strength of the teams. The commissary stores were daily decreasing, which would greatly relieve such of the teams as were weak, and the probability of being more so before arriving at the Dalles.

At sundown every change had been made that the trains could undergo. The regimental train was in charge of Lieutenant Frost, and I left it with him to make such changes as might suit the commanding officer, and with such alterations as I thought indispensably necessary.

The companies in leaving Fort Leavenworth had been provided with good teams, but many of them were allowed to be too much overloaded for so great a distance; and as it had been done under the inspection of officers of the department, as well as those immediately interested in the success of the journey, I could make but very little change after overtaking them on the prairies; the consequence was, they had become much broken down by being overladen.

Having completed the alterations necessary to facilitate our onward movement, I made my report at 8 o'clock p. m., finishing two of the most laborious days' work that had been done while on the journey.

As nearly all the horses of the six companies had partly given out, and many of them completely broken down, they were left to be brought on with the 2d division train; the men who were on foot were placed under the command of Lieutenant Lindsay, who commenced the march quite early this morning, in advance of the train and those who were mounted.

September 2.—The morning was very smoky, which prevented us from catching our mules and leaving before 8 o'clock. The second division was directed to change its encamping ground, and remain one day before it renewed its march, and Lieutenant Frost was left in charge of the public property to conduct it to the Dalles.

The road here crossed Malheur river, and ran along a valley for some distance; from thence it gradually passes over small hills, and finally descends by a gorge to Birch creek, where we made our encampment at sundown. This day's march brought us twenty miles, and was performed in shorter time, and with much less difficulty, than any day's journey since we left Fort Hall. The road was good, as the rise and descent among the hills were very gradual throughout the day; besides the number of wagons broken up had given us an additional number of good mules, and the most indifferent had been turned out to be driven, which gave us an opportunity to travel rapidly, as we were no longer encumbered by them.

Dr. Moses and myself visited this morning the hot springs at Malheur river, and found the water at 196°. This spring is on the right bank of the river, and about 200 yards from where the road crosses, and at the end of a range of hills that runs parallel to Snake river from Fort Boissé. The ground about this spring was extremely warm, as the heat could plainly be felt through the boot by standing on it for a short time. I could detect no peculiarity in the taste of the water, although muriate of soda was encrusted on the pebbles about the spring. There was nothing very peculiar in the formation of the several springs, which were at a short distance from each other at this place; the water was very shallow, and came from the bank with but very little force, showing that the fountain-head of the spring was very little higher than where it came from the earth. The soil in the bottom, through which we travelled in the morning, is dark, and resembles that on Bear river. Wood is not to be obtained on the hills or in the ravines in this vicinity, and is as scarce here as at Fort Boissé. A little willow is found on Malheur river, which never fails to be seen on all the streams in Oregon.

I was not aware that the water of this spring had ever been analyzed, and, being somewhat anxious to know its qualities, I procured a small quantity, and carried it with me through the whole journey, but have since ascertained that it was examined by Colonel Fremont, while on his exploring expedition through this country in 1843 and 1844. If I had taken the same trouble with the water at the hot springs visited before arriving at Fort Boissé, it might have been to some purpose, as I am induced to believe it has never been analyzed; but I presume the two springs are much the same, as they are nearly of the same temperature, and resemble very much in other respects.

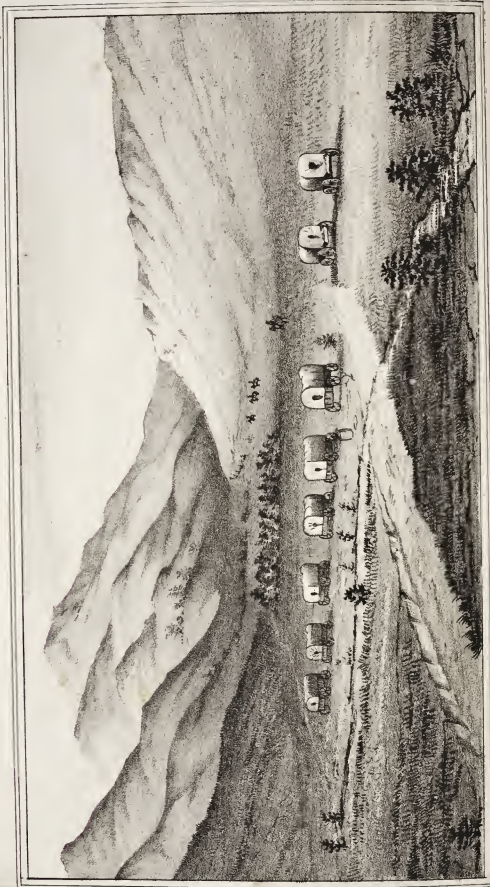
September 3.—We made an early start this morning, and a few miles brought us again alongside of Snake river, where we were now to leave it for the last time; and no river has been passed on this march with more heartfelt joy. It here turned to the north, forming a large bend, passing through a range of high hills, making a deep cañon in its way through them. We soon passed out of sight, as the road gradually crosses a ridge and descends to Burntwood creek, which, turning to the northeast, breaks through the same range of hills, leaving also a deep cañon in its passage, and falls into Snake river, not far from where we left it. These openings in the mountain hills are very striking, and worthy of the notice of those who travel this way.

Our road ran along the stream throughout the day, leaving it but once until we made our encampment, at 4 o'clock p. m., where we stopped again on its banks, completely hemmed in by the mountain hills, that form a ravine, through which this little stream passes.

Since leaving Fort Boissé, the country began to change rapidly from plains and broken clay banks to that which is more hilly, and, although the hills are not very high, were gradually increasing, and continued to rise rapidly until we arrived at the foot of the Blue mountains. These hills were well covered with bunch-grass, which was very strengthening and much sought after by the mules, and we were fortunate in getting it for them through to the Grand Ronde.

September 4.—We commenced the march at half-past 6 o'clock this





CAMP GROUND SEPT 5TH 1849



morning up the ravine, which became so narrow that the road passed along the bed of the river for some distance, when it again turned to the right, and, winding around the base of the hills through a very narrow gorge, brought us once more on level ground, where the face of the country was entirely changed. Mountains were to be seen all around, and it appeared a mystery how we had extricated ourselves from those left behind us with so little difficulty, or how we were to pass those ahead of us. This brought us again on Burntwood creek, where we encamped for the night.

In this day's journey the road lay much of the time on the creek, seldom leaving it except when it became too much encumbered by rocks to allow us to pass. There is much cotton, birch, and willow wood on this creek, and in many places it is quite large; we also met with wild-cherry and hawthorn here, and, although filled with fruit, the trees grow to a very limited size.

The ravine through which the Burntwood passes is too narrow to be cultivated, but the soil is rich and ought to yield very well. The evening was spent in reaching the tops of some of the highest mountain hills, where the view of the adjacent country well rewarded us for our trouble; a few scattering hemlocks were seen in the ravine where we made our encampment, and the distant hills and ravines beyond were interspersed with several groves of cedar and pine. Our encampment lay in a fork formed by Burntwood creek and a little brook which falls into it; having crossed the creek thirteen times, and travelled about fifteen miles, and although the road was altogether quite rough, we accomplished the day's march without any trouble.

September 5.—Our location last night was a very good one, as we had wood, water, and grass in abundance. The night was quite cold, but clearer than usual; for such is the density of the smoke sometimes, as we approach the Blue mountains, that it frequently intercepts the view of the adjacent country.

We commenced our march at 7 o'clock a. m., turning immediately up the side of the little creek which ran by our encampment, and, after passing around the base of these hills, which are entirely detached, again reached a part somewhat more level. We had not travelled long before we began to descend gradually through a valley, until towards the close of the evening, when we came to a small mountain brook where birch and cottonwood were found on its banks, and scattering pine on the sides of the hills.

We had travelled about sixteen miles to-day, the greater portion of the road leading through much more open grounds, although we were still surrounded by ranges of mountain hills, but not so much confined to narrow gorges as our march of the third and fourth. There was nothing, however, very striking in this day's march; the gorges and ravines are very similar, and very little difference in the ranges of mountains which completely surrounded us. We were, however, daily approaching the Blue mountains, where the pine and hemlock would take the place of the artemisia, which was gradually decreasing.

September 6.—After passing this morning through the valley in which we encamped last evening, the road brought us to the top of a high ridge,

giving us a beautiful view of the mountains, running east and west, and parallel to the ridge over which we were passing. The sight was very fine, as these mountains were the first we had seen covered with pine since leaving Soda springs. This range is high and rugged, with its base well wooded; those to the left were equally as much so, while the Blue mountains to the northwest reared their peaks in dark blue masses high above the rest, and are covered with a growth of as beautiful timber as can be found between here and the Pacific ocean.

The valley between these two ranges is probably six miles wide. The soil appeared light, spongy, and of a quality very similar to that on Snake river.

About five o'clock in the afternoon we came to the valley of Powder river, and encamped for the night on what was once the bed of the river, which now runs near the base of the mountains, and about two miles distant. This valley has many advantages over those I have passed on the march, besides having a fine stream running through it; the mountains in the vicinity are covered with pine and hemlock, which is easy to procure; the soil is light, and sufficiently level to be irrigated, and will no doubt yield well when properly cultivated.

September 7.—Last night was very pleasant, compared with many we had felt since coming among the mountains. In the early part of the morning the view of the mountains on the east was destroyed by a dense smoke and fog, which we have frequently met with since leaving Fort Hall, but it soon began to disperse, which gave us a fine view before the middle of the day. The morning was pleasant, and the day warm. We continued down the valley for eight miles, where we crossed the river, and made our encampment on its bank, but a short distance from where it turns to the right, and, running through a range of mountain hills, over which we passed this morning, it flows into Snake river.

We remained here to-night, having fine water and a plenty of wood for ourselves, and good grazing for our mules and horses. This stream is about thirty feet wide; it is clear, and runs quietly over a gravelly bottom, where brook trout and salmon are found in great numbers, but, being late in the season, the salmon become very poor in these streams, and many of them die. It is said by mountaineers that they get weak and sickly, and never return to the Columbia river from this stream. Be that as it may, there is certainly a great difference in the taste of the salmon fish caught near the Pacific and in this stream, and there is very little doubt but what numbers of them perish here, for we saw much sign of it about the banks of the creek, and those that were caught had a whitish appearance, very different from the healthy salmon found in the Columbia river, and were not fit to eat. From all the information I can obtain, gold can be found on the head waters of Powder river, but the Indians are unwilling to risk themselves in that vicinity, as they would come in contact with hostile Indians, who reside in the mountains, and immediately in that neighborhood. I have no further knowledge of this fact myself than what I obtained from the guide, and others who have resided among them.

September 8.—The morning was so smoky as to prevent us from seeing much of the country through which we were to travel to-day. The





VIEW DESCENDING THE GRAND ROUND FOOT OF THE BLUE MOUNTAIN

road, after leaving Powder river valley, turned again amongst the hills, which were interspersed by small groves of hemlock. The view which we had of the Blue mountains was very beautiful, and we were soon to reach them, and again have the pleasure of entering a thick, dense forest, of the beauty of which we had so long been deprived.

We travelled until about 2 o'clock, p. m. over an uneven country, then descended a mountain for a mile and a half, which brought us into the Grand Ronde, a beautiful valley, or more properly a basin, for it is entirely surrounded by the Blue mountains on the north and northwest, and spurs of mountains to the east, one of which we had travelled over during the day. At the base of the mountain we crossed a small brook, which came from the deep gorge to our left, and, after running along at the base of one we had just ascended, passes through the Grand Ronde valley, and falls into the Grand Ronde river, which is a delightful cold stream, that comes immediately from among the mountains. We continued our march through the valley until we reached a small stream near the head of the valley, where the road ascends. Here we stopped for the day, intending to remain a day or two, before attempting to cross the Blue mountains.

This valley is a fine, dark soil, very level; and as water issues from the base of the mountains which completely surround it, it may be easily irrigated, and is, for a settlement, the prettiest place I have passed on the route. The range among the hills and in the valley is very fine for grazing, while it is well protected by the mountains against the northern winds in winter. The thick wood would give shelter to cattle and all other stock, while the valley and mountains would supply them abundantly with grass to subsist on during the winter. The only objection, therefore, which can be made to this section of country is the great difficulty of getting produce to the Columbia river; but this could be easily remedied, and the day is not far distant, no doubt, when a railroad will overcome these objections, as the distance between here and the Dalles is but 205 miles, as the road now runs, passing through the Eumatilla valley, which would avoid the high hills, and present not the least obstruction, while there is timber enough to be found here and at the Dalles to build a railroad to the Atlantic ocean.

September 9.—The morning was much clearer than when we entered the valley; and it gave us a fine view of the range of the mountains to the north and west, as well as the extent of this beautiful valley, which surpassed any we had seen on the march.

A number of Indians came to our camp last evening and this morning, bringing some of their most *inferior horses* with them, to exchange for blankets, tobacco, and trinkets. These animals were very wild and equally vicious, as they could scarcely be approached without our running the risk of being bitten or kicked by them. They are generally rode with a lariat, fastened simply around the lower jaw, while a small pad, with wooden stirrups, constitutes the saddle. The Indians never mount their horses on the left side, and the bridle is of but little use to them in guiding, as it is principally done by pressing the legs close to the side of the animal, and the least touch of the bridle is sufficient to guide in any direction.

Having been directed to proceed to the Dalles to make necessary arrangements for transporting the troops by water to Fort Vancouver on their arrival, I hired a guide, and also several horses, which would enable me to travel the distance without any delay, and made every arrangement for an early start in the morning.

CHAPTER VIII.

Journey with an escort, Lieutenant Lindsey and two men, to the Dalles, three and half days, 205 miles.

September 10.—Having made all necessary preparations last evening, I started this morning at half-past six o'clock, in company with Lieutenant Lindsey and two soldiers, as an escort.

The road lay up the valley for three miles, when we commenced to ascend a very long, steep mountain, which after considerable work, we got to the top of the ridge, and in five miles further descended to its base, which was as difficult as the ascent; this brought us to a beautiful mountain stream, called the Grand Ronde river, that passed between the ridge which we had just come over and those on the other side, which we were about to travel over. This stream runs into the Grand Ronde valley, and, being met by other small brooks, gives an abundance of water to it.

Our route lay along the side of the mountain, which, after riding for about two hours, brought us to the top of what seemed to be a wide ridge; and the whole distance travelled, until we crossed the mountains, was over slight rolling ground, except from ascents which were made by small valleys or ravines in the mountains.

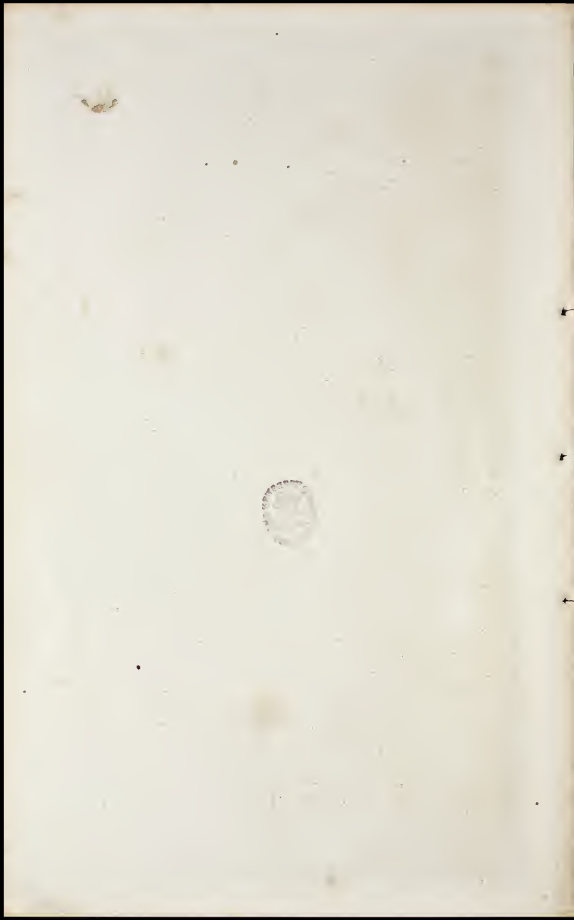
Our horses were soon put into a canter, in the true California style of riding, and kept so until the close of the evening, when we again came to clear ground, on the opposite side of the mountain, and after travelling along on the ridge, and winding for some time down its side, which is entirely destitute of timber, we reached the Eunnatilla river, which has its rise in the Blue mountains, and flows into the Columbia river, ninety miles above the Dalles.

The soil on the mountains is of a dark vegetable mould, and thickly covered with timber, consisting of hemlock and fir, hardly surpassed by any in the United States. The timber is not generally as large as that on the banks of the Willamette, but equally as tall and abundant. While on the mountains we came to water several times during the evening's ride, and although the command had to encamp twice before crossing, they found enough to answer their purpose.

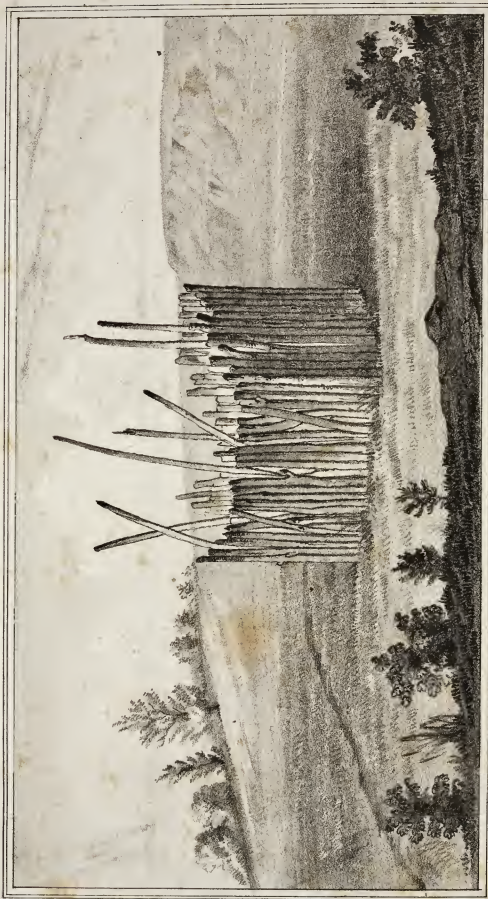
The distance travelled to-day was nearly fifty miles; and we were all tired enough to make our encampment for the night, which was easily done, having nothing but our blankets. We all lay down under a wide-spreading cottonwood, by a fine fire, on the banks of the river, for the night, after each man had cooked his own dinner and supper, in the true mountain style. It is merely necessary to remark here that, for better



DESCENT AFTER LEAVING THE BLUE MOUNTAINS SEP. 13th 1849.







INDIAN BURIAL GROUND SEP. 15th 1849.

than four months, our dinner and supper were generally served up at the same hour, and it depended generally upon the time of encamping, and the means of cooking it, whether we were fortunate not to go without either.

In entering the Eumatilla valley, I was struck with the fine range for stock which presented itself to my view, as the country, though high and rolling, is not broken, but covered from the base to the top of every hill with fine bunch grass, which is so much sought after by the stock in this valley.

September 11.—Last night was very cold, and the morning calm and very smoky. Our horses had strayed off, which prevented us from starting before seven o'clock, when we passed along the Eumatilla valley, until near the close of the day, crossing and recrossing it several times in our ride.

At nine o'clock in the morning we came to where the Cayuses Indians were located; their town, which is temporary, consisted of a number of lodgings made of mats and bushes, much larger than those made of buffalo skins. As they expected us, they were all on the *qui vive*; some were out to meet us, while others gratified their curiosity by gazing at us; old women and children were to be seen in numbers, while the smaller boys were out attending to the droves of horses which belong to the band.

I have seldom seen a more beautiful sight than I witnessed in examining these large droves of horses, that could be seen throughout the valley and among the hills; they are stout, well-built, and very muscular, but not tall, and look to me as formed for great durability and strength. Having remained with the Indians a short time, I again continued my journey until twelve o'clock, when we came to a burial-ground near the road, and not far from the banks of the Eumatilla, where the dead were deposited of those who had been killed by the Oregonians in the campaign against them after the death of Dr. Whitman. The ground was nicely staked in, and at the head of the graves a long pole was planted, probably to designate the person who was interred. There were several places of the same kind which I observed, all of which were very handsomely fenced in, so as to protect them from the wolves, and keep the remains of their friends secure from being harmed or molested. I saw, for the first time since leaving Fort Leavenworth, signs of agriculture. These people had been taught by the first missionaries established among them the use of implements for husbandry, and had begun to cultivate the soil, as the remains of the old fences, enclosing fields that had been cultivated, bore ample proof of their progress towards civilization; but the death of Dr. Whitman and the chastisement received from the whites for it put an end to tilling the soil, and they have done but little since. We stopped about noon for a short time, having come near forty miles, and then continued our journey, leaving the Eumatilla and striking the Columbia river as the sun was setting. The last fifteen miles of our road was over a barren, sandy plain, giving a view of the country for miles beyond the Columbia both up and down the river, even more barren than that of Snake river: for there the wild sage could be seen in a flourishing condition; here the ground seemed too sandy to produce it, although it was still to be seen.

There is some good land on the Eumatilla river, but generally it is too sandy. The river is narrow, and at this time the water lay in holes where we crossed it for the last time, but a short distance from where it empties into the Columbia river; its bed and banks give ample sign of volcanic action. Some time before arriving at the Columbia river, I saw at a distance a deep cañon through which it passed, but could not well distinguish it until I nearly reached its banks. I was at first somewhat disappointed in its appearance, expecting to see something more magnificent. The river is about 600 yards wide where we struck it, and the banks are not more than six feet high, with a gentle sandy slope to the water's edge, which quietly rolled along with but very little current. The whole country presented a scene of barrenness seldom met with, for not a tree was to be seen far or near. It was a delightful evening, quite calm and warm, though a little smoky; so that it prevented us from viewing still further the sterility of a country where so much has been said in its praise and against it.

Our horses were hobbled and turned out to graze on what little grass could be found among a few small willows which were growing in detached places where we encamped for the night. We had travelled to-day at least sixty miles, and, as the day was warm, and not being accustomed to such violent exercise, were very much fatigued.

The day's ride had brought me to the banks of the Columbia river, after four months and eleven days since leaving Washington city. We had gone through much fatigue and many perplexities; we had escaped the cholera and surmounted many difficulties; and when we reflected that we had at last reached the Columbia river, though not at the end of our journey, it filled each one's breast with feelings which cannot be easily described. We now began to think, by a little more perseverance, that our journey would soon be brought to an end, and the fatigue endured would only render the trip more interesting when we look back on it hereafter; it would be a source of pleasure to reflect on the hardships endured, and what we had encountered during a period of five months.

September 12.—We set out early this morning, as it bid fair to be a pleasant day, although the air was sharp and keen; but the slight breeze made us feel it the more sensibly. Our trail lay along the banks of the river, and we had not travelled far before we passed, on the right bank, some thirty lodges of the Wallawalla tribe, who had come down to fish, and their lodges in small numbers could be seen during the day. We continued along the bank until 13 o'clock, when we stopped on Riviere de Canal to graze and rest our horses, having come twenty-five miles. Here the road leaves the river and strikes it twelve miles below; from thence we continued along the bank of the river until near sundown, when we again encamped on its banks, or rather between the perpendicular cliffs and the water's edge.

The plate here annexed is a scene on the Columbia river, where we descended to the river, after travelling twelve miles, and fully explains the formation of the columnar basalt which you meet with from this point along the banks of the river to its mouth, although much higher.

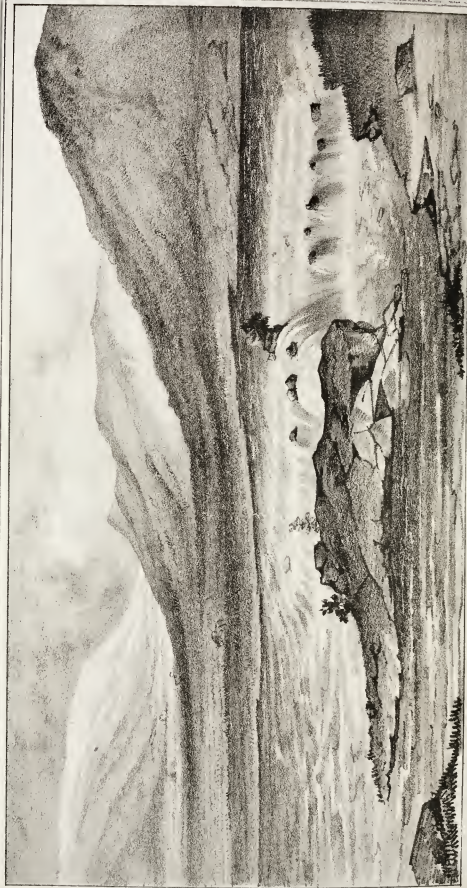
They are frequently found standing alone, and some of the pieces of rock, of an octagonal form, are from eight to ten feet long, piled one on



ROCKS ON THE COLUMBIA RIVER SEP. 18th 1843.

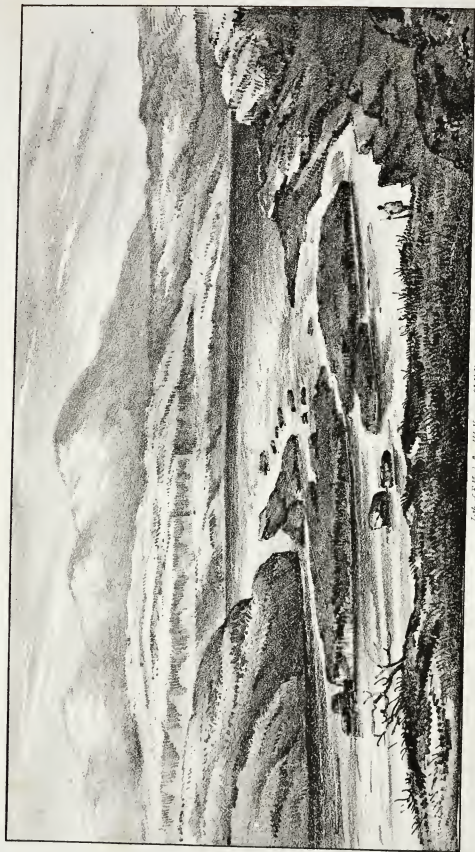






LITTLE FALL, OREGON SEP 22 1869





Lith of F. M. Schuchert, Ill. Watson, N. Y.

A VIEW ON THE COLUMBIA RIVER, AT THE COMMENCEMENT OF THE FALLS

the other for hundreds of feet high, until it forms the side of the river in places from five hundred to one thousand feet high, and in other places much like that on Snake river.

Having remained here for the night, our horses were again let loose to graze on what could be found; and the scarcity of grass justifies me in saying that none but a Rocky-mountain horse could have stood such rides and so little food.

September 13.—The day was calm, and the whole country seemed to be shut out from view; last evening and this morning you could not see across the river at some of the bends. The rapids at our encampment looked very beautiful, and the water ran in other parts of the river with a very rapid current; and from here to the Dalles, about twenty miles, we passed rapids constantly. Our ride this morning soon brought us to John Day's river, a small stream about thirty yards wide where we crossed it, at its junction with the Columbia river. The road passed over the plain and among the hills about this river, which are extremely rugged and high, giving great trouble to get over them. Our path still remained on the banks of the river, which was only an Indian trail, that was nearer and still more convenient for water. At 12 o'clock we arrived at Shute's river, or more properly Fall river, which contracts here and forms a very pretty fall before it reaches the Columbia, which is not more than two hundred yards from it. This stream is probably one hundred yards wide, and is very difficult to cross when the water is high. When this is the case, the animals have to be swam across, to an island below the falls, and the loads and wagons taken over in canoes, which are entirely managed by Indians.

At this place, the country between here and the Dalles becomes very hilly, and not very unlike that crossed on Burntwood creek, as well as the gorges which take you to the river at the foot of the Dalles, or the Old Mission, established several years since by the Methodist missionaries. We remained but a short time at this place, and renewed our journey to the Dalles. The road from here leads up a long hill, and, after passing along the bluffs at least two miles, turns to the left, and, passing over the ridge, strikes a small stream at its base, which unites with another called the Wallawalla Fork, which empties into the Columbia river at the Dalles. This stream waters a very fine valley, about half-way to the Old Mission; and all the ravines you meet with have good water and plenty of bunch grass.

While passing down the ridge, we had a fine view of the commencement of the falls before reaching the Dalles; and when near them we again left the river and passed over the ridge, which brought us in full sight of where we had a fine view of what is called the Dalles of the Columbia, which is a series of falls that present a very imposing sight. When it is first seen it is but little more than a rapid, where the whole river, passing over a ledge of rock, that extends across the river, causes an interruption in the current of the river, and makes a very small fall; after this the water is seen passing rapidly between flat table-rocks, whose surfaces have been worn smooth by the friction of the water in higher stages of the river; the next seen is where the water falls into a contracted part of the river, the middle of which is interrupted by large masses of

basaltic rock, which are perfectly level and smooth on their surfaces, and finally the river becomes still more contracted, and passes through a deep cañon of the same formation, with a rapid current which forms in its way large eddies, and renders it, at this stage of the river, extremely difficult to get a boat above them.

From the top of this hill we had a fine view of the valley, which is made by the hills receding a little, and curving with the river, forming a valley, which is probably ten miles long, though in no part is it more than a half mile wide. We continued our journey to the Old Mission, where I met with Lieutenant Fry, who had at that moment arrived with the boats for our transportation to the Great falls of the Columbia river, forty miles below. It was about 2 o'clock when we arrived, and we were all greatly pleased, not only in reaching a point which really seemed to be the termination of the journey, although there was still much to do, but we had the pleasure of meeting with those who could give us some intelligence, in the way of late news from the States, of which we had so long been deprived.

September 14.—This morning was very pleasant, but we were prevented from seeing any distance, in consequence of the constant clouds of smoke which fill the atmosphere, so that it becomes impossible to see. Yesterday evening our view did not extend a mile from the mission. The wind had been prevailing from the southwest so long that the sky was entirely overcast.

Lieutenant Fry left this morning, accompanied by Lieutenant Lindsey, for Fort Vancouver. I wrote to the quartermaster to send more boats, if they could be obtained, and also wrote to Colonel Loring, giving him my views relative to the disposition to be made of the whole command, which are here attached to the appendix.

The Old Mission has gone greatly to ruin. It is composed of a dwelling-house, which we now occupied; also three more buildings, one of which had been used as a school-house, opposite the one fronting the river. These buildings would all have made good quarters for a detachment of troops, (which was suggested in my letter to the colonel,) who could have remained here and taken charge of the stores and public property this fall. The buildings rest on the side of the picket-work, which is made of heavy pine logs, brought from the neighboring mountains, where wood for fuel and timber can be procured in great abundance. The outbuildings have all been destroyed, and the whole has been going to decay since the war with the Cayuse nation, at which time it was abandoned. There is a fine spring but a short distance from the house; and the whole valley, which lies between the mission and the river, is finely watered. The soil is very sandy, but, as the valley shows signs of volcanic action, I presume the soil would produce fine grain, particularly oats; for it is not unlike the soil which you meet with at the base of volcanic mountains in Mexico, which yields admirably well.

One of the views here annexed is a small ravine between the mission and the river, where the sides are lined with volcanic rock, and from whence you have a beautiful view of Mount Hood.

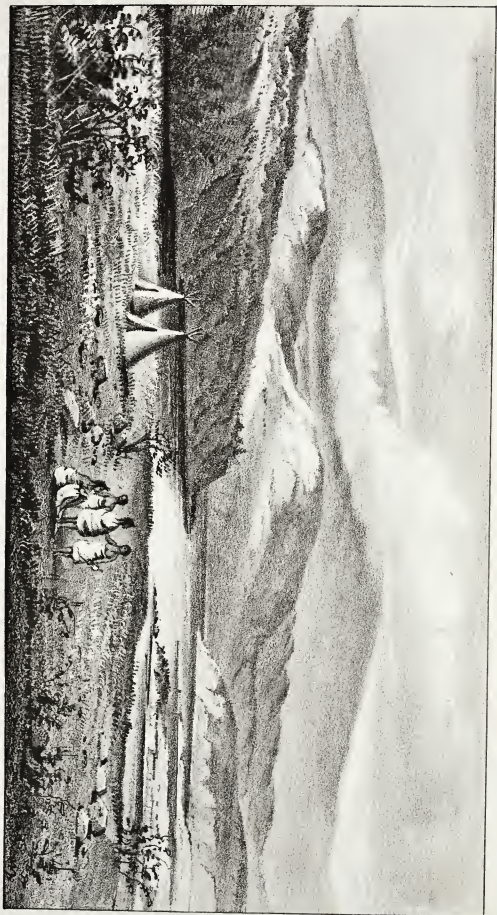
The hills on the other side of the river are entirely destitute of wood, which begins to show itself at the bend of the river, below the Old Mis-



VIEW ON THE COLUMBIA RIVER, BELOW THE DALLS.

Engraved by J. H. R.

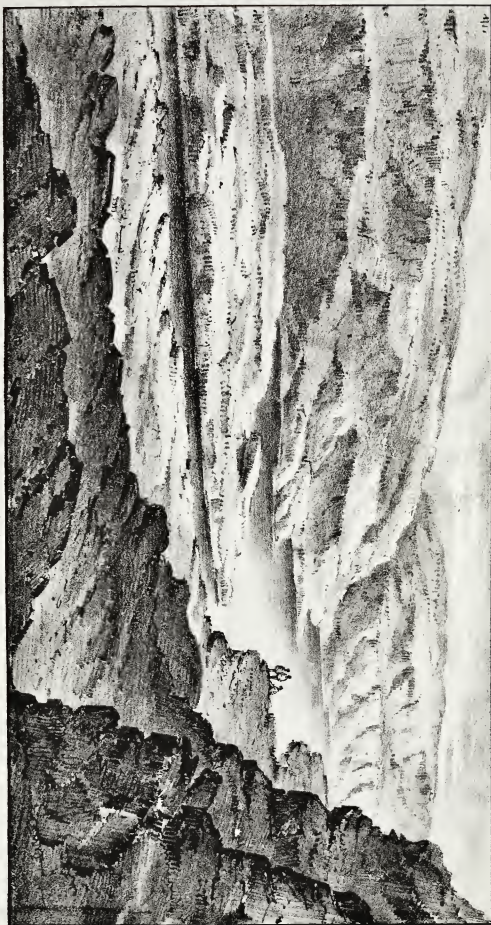




Look of F. Mendenhall, III. Knappton, N.Y.

VIEW ON THE COLUMBIA RIVER, NEAR THE DALLES.





VIEW OF THE DALLES ON THE COLUMBIA RIVER.



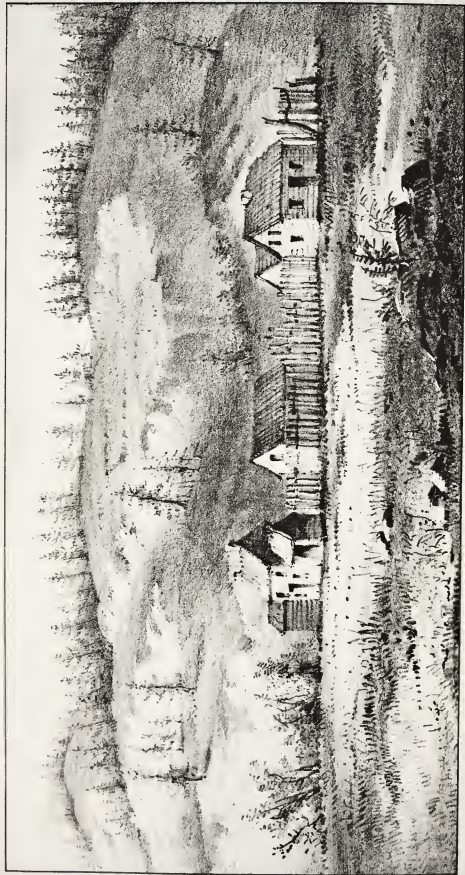




VIEW ON THE COLUMBIA RIVER BELOW THE FALLS.







MISSION NEAR THE DALLS

Gift of J. H. Rogers, of Kansas, 1873.





VIEW OF MOUNT HOOD FROM A POINT NEAR THE OLD MISSION BELOW THE FALLS

sion; those immediately in rear have a little scrub oak and pine, but neither is found in great quantities, as much of it has been destroyed. The mountains immediately in the vicinity, however, are abundantly supplied with pine, which is accessible, and can, at any time, be obtained for building purposes in the greatest abundance.

The country between here and the base of the Cascade range affords mountain bunch grass in great quantities. On the Wallawalla Fork, and over the whole range of country between here and Fall creek, there is fine grazing. The small valleys on the streams afford an abundance of grass for a large number of horses, cattle, or sheep; and, from my own personal observation, I know of no place that possesses more advantages for a post than this.

Troops are able to move from here at all times, in any direction, either up the river, towards the head-waters of Fall creek, or even towards Puget sound, as there is fine grazing, and no very great obstruction direct from Fort Wallawalla, by Mount St. Helen. As regards the trouble of getting supplies, this would not be attended with half the difficulty in the spring, when boats can come over the falls, as the great trouble would be for mounted troops to move from Vancouver in this direction.

September 15.—There was very little wind to-day, which made it warm in the middle of the day, and very smoky, which prevented us from seeing the beauties of the surrounding scenery. When the weather is clear, the view of mount Hood to the west, about thirty miles, and Mount St. Helen to the north, is very beautiful. The former appears quite near, compared with the latter, as you have merely a sight of the top of the latter, which, about this time, is generally covered with snow. As our journey had given us much fatigue, having rode, in little more than three days, 205 miles, and been on the road better than five months, we made this a resting day, and began to feel as if we had nearly completed our journey; at any rate, we could now take our time, as we were in striking distance of our place of destination, where aid could be obtained at any moment, if required.

September 16.—Being desirous of examining the country before the arrival of the troops, to see where our horses and mules could be kept, I left this morning, in company with Mr. Switzler, who had come in charge of the Indians, and travelled down the river about fifteen miles, where the river takes a bend and forms a valley entirely surrounded by high mountains, where there was but one place through which you could pass, giving room merely for a wagon. At this place grazing is very fine, and any number of animals could be kept there entirely secure.

It was also the place where the emigrants had crossed their horses and cattle in 1845. I returned to the old mission about four p. m., after a fatiguing day's ride, not so much in distance as from a bad horse and the effects of the three days' ride from the Grande Ronde, from which I had not recovered.

September 17.—The day set in cloudy, with a warm wind from the south-west. I was prevented from going to the Big falls this morning in consequence of sickness prevailing among the Indians, who had come up with the transportation, who were afflicted with fevers, by constant exposure and severe labor in ascending the river over the falls.

As the Mackinaw boats had become leaky by the rough usage received among the rocks in ascending the river, I had them pulled out and repitched. The Indians were getting very impatient, as they are a restless set of people, and cannot be confined long in one place.

September 18.—The boats were this morning again placed in the river ready for use. The weather still continued smoky, the wind from the southwest being stronger to-day than any since our arrival, as it brought over thick clouds of smoke, which still kept hidden from us the beauties of the adjacent mountains. As evening came on, however, it was calm and pleasant, and the troubled waters seemed to become more quiet, and glided along with their usual tranquility.

September 19.—This morning an Indian came from the first division, bringing a letter from the headquarters of the regiment, which was answered by the same express. The morning is cloudy, and cool enough for a fire.

Several persons arrived from Fall river to make necessary preparations for descending the river, if it were found more advantageous to do so than to attempt to cross the Cascade mountains.

Having learned from these men that the stage of the water would cause a detention of the command at the river, I determined to undertake to carry one of our boats to that place, if it were possible to get it through the Dalles; for, with this assistance, the stores could be easily ferried, but to bring across the whole in canoes would be an endless job.

Necessary instructions were given to make the attempt in the morning with one boat; and, as the start was to be an early one, we turned in early, to be the better able to commence our journey at the proper hour.

September 20.—The morning was quite calm, after a very windy day yesterday.

The Mackinaw boat went off early this morning, much to the delight of the Indians, who were very anxious to visit the Indians above, who had assembled in large numbers to fish for salmon, and to see the soldiers, who had attracted much curiosity among them. I was very anxious for the command to arrive, for we were here without one comfort, or any means of making us so. I had now been from the first division nearly two weeks, without a tent or the means of cooking; the only thing we could really boast of was a coffee-pot and a bowie-knife; as to a plate of any kind, all had been left behind, and a common pine board was used as a substitute. This mode of living will do sometimes, and can be endured for a time; but it was a mode of living I began to grow weary of the nearer I approached civilization. Each man had his blanket and overcoat for a bed, which, on a plank floor, was not the most agreeable way of lying, and a poor substitute for a good soft bed, made of grass. The boat was well manned, having a fine boat's crew of twelve Indians, who made it glide through the water like a "thing of life."

The interpreter was taken sick with chills and fevers, and there was but little change among the Indians, who had increased to five patients, and no medicine to give them. I began to feel that my pleasure of seeing the command would only be equalled by the sight of reaching our resting-place a few days since.

An emigrating party came in this morning from Fall river, who were

compelled to take their wagons apart, but thought in a few days that the river would be low enough to drive across ; I therefore determined to go up in the morning, where I hoped to find my boat safely landed, which was sent yesterday to their assistance.

September 21.—I left at seven o'clock this morning for Fall river, with the expectation of meeting with the troops, but was informed by some emigrants whom I met on the road, that they left them yesterday, and it would take them until late this evening before they could possibly arrive at Fall creek. These people were in advance of their party, going to the Dalles, which seemed to be the general rendezvous for such as feared to undertake, at this time, the crossing of the Great Cascade range, particularly with weak teams.

I learned, on reaching the crossing, that the troops would not be there probably until the next day ; and I regretted that my boat had not arrived, nor could it be got over the last fall. The Indians had labored all day to succeed, but, becoming disheartened, had finally abandoned all further attempts, and were enjoying the hospitality of their friends, when I assembled them together to return to the Old Mission, through the same deep cuts among the rocks where they had yesterday toiled almost in vain to overcome.

This ride gave me a fine opportunity of again carefully examining the falls, as well as the Dalles, which can be better understood by examining the series of plates annexed than by any words I can find. The whole distance, since we struck the river on the 11th, has been through a deep cañon of dark columns of basaltic rock, in many places five hundred feet high, with a column of water, which in places was six hundred yards wide, now contracting to fifty yards, and passing through a small canal, where the water could hardly be seen without close examination, below the common bed of the river of twenty-five feet. From the top of the cliff, where we could pass, the rocks lay side by side, apparently so near that it would be but little trouble to pass entirely across the stream, as if they were stepping stones. Having carefully examined them, and the great expertness of the Indians in catching salmon, I again passed over the road, which lay among the little ravines and gorges, and arrived at the Dalles just as the sun went down, soon followed by the boat, which the Indians were successful enough to bring in safety through the Dalles. My horse was not the best I had seen, and went as long as I applied the whip to him. After a ride of thirty miles, in which I had labored much more than the animal, I reached the mission, much more worsted than the horse, and was very glad to return him to his owner, who never troubled himself as to the fleetness of his pony, so long as he could reach his point of destination without much bodily labor or trouble to himself.

September 22.—The day was extremely pleasant, the morning was clear, and we were gratified with a view of Mount Hood, which lay in a westerly direction ; it appeared quite near, although thirty miles from us. The weather had not been cold enough to cover it with snow, and only left but a little trace of it.

Although this mountain is seen partly from the Old Mission, still the prettiest view is from a ledge of rocks on the side of the valley which is between the Mission and near the point where the troops embarked. The

several views that are here placed in order from the Fall creek will give the river through to the bend below the Dalles, and is probably from fifteen to twenty-five miles in length. That of the Old Mission, the valley, and the point where the troops embarked, will give a far better idea of that country than any description I can write of it; and I will here take occasion to say it is the case with all the drawings annexed, and my principal object in having the sketches taken was that the whole country should be delineated more perfectly in the description by them.

Lieutenant Lindsey arrived to-day, bringing one whale-boat and a ship's boat, which made an addition to our little fleet; he also brought along a fine party of Indians, all good oarsmen, who were greatly required. These Indians had been so much under the good discipline of the Hudson's Bay Company, that they had only to be commanded to obey promptly. The crew who had been left here were nearly all sick, and but little use to us at this time.

The command arrived here late this evening, and encamped about three miles from us, and all preparations were now made for a speedy departure. As I was well aware that we had much more freight than could be taken down for some time, I prepared a raft, by taking a portion of the pickets from the Old Mission, which being sanctioned by the colonel, and having given orders to commence early in the morning, it was soon completed.

September 23.—The morning was clear and pleasant, but indicated wind. Mount Hood was again seen to-day, as the atmosphere was very clear, which sometimes it is not for a week; and you are better able to judge of the clearness of the atmosphere by the distinct outlines of that mountain than the hills immediately around here.

An order was issued regulating the departure of the troops in the following manner: Brevet Major Ruff was to accompany the boats, with as many persons as could conveniently go, as they had become barefooted and unable to walk; the remainder were to march down by land twenty miles below, on the left bank of the river, with such horses as could well go this route, and there to cross, when they would proceed to Fort Vancouver by land. I despatched a wagon in one of the boats, and a team with two teamsters to transport the stores at the half-mile portage, while the boats were to be taken over the falls by the Indians, and from the foot of what is called the Upper falls; the open boats were then to proceed to the foot of the Lower rapids, a distance of three miles, and there embark on a schooner employed to transport them to Oregon City. Major Ruff was to send back the boats to transport the remainder, and, in the mean time, to improve the portage, so as to admit a wagon to pass.

This evening we commenced to load, but the company stores came so slow that very little was done, and it was postponed until the morning. I was taken with a violent cold, which partly deprived me of my voice, but it did not prevent me from continuing the labor of getting off the troops and loading the boats, under my own special superintendence, as all were very anxious to reach their place of destination.

September 24.—Mount St. Helen was very plainly seen, for the first time, this morning, to the north, though much hidden by mountains in that direction. Since my arrival the smoke has been so dense as to exclude the scenery in the immediate vicinity; but the top of this mountain, rising

over the neighboring mountains, could now be plainly seen, capped with snow. This view, with that of Mount Hood to the west, the mountains covered with pine around us, and the hills to the east destitute of wood, gave us a new picture, much more agreeable than the monotonous scenes so constantly presented to our view on our march. The whole landscape reminded me very often of the scenery in Mexico, though not near so picturesque; yet there is a boldness about the rugged cliffs in that country which these do not possess.

The boats were all loaded and off at half-past 9 o'clock. Major Ruff and family and fifty men—also, a large quantity of company and private baggage—were transported in three Mackinaw boats, one yawl, four canoes, and one whale-boat. The party of foot, mounted men, and eleven pack mules, left at 11 o'clock to cross the river about twenty miles below, at an Indian village, where the guide was directed to hire Indians to cross them to the right bank of the river. This made our camp look very deserted, as the second division had not yet arrived, and, if the march was made properly, could not arrive for several days, as the broken-down condition of the animals would not possibly justify long marches.

September 25.—The day was calm and warm, and nothing to prevent the boats from reaching the Cascades early to-day. Having learned that the second division was at Fall creek, much to my surprise, and in a very bad condition, I despatched fifteen teams to assist them to this place. The raft was completed, and, from all appearances, it was thought that at least four or five tons could easily be carried. The Indians were coming down constantly with their canoes to hire, but the greater portion were small and but very little calculated to carry freight, although there are canoes among them which are large enough to carry twenty persons.

September 26.—The day was extremely pleasant, and everything favorable for the party who had embarked, as well as for those who were still left behind. Lieutenant Frost and Doctor Moses arrived to-day at 11 o'clock, and the division late this evening. I learned to-day from Lieutenant Frost the manner in which the march of the second division had been conducted, which convinced me that the state of the train left by me at Malheur river must be deplorable; and I do not hesitate to say, if a different course had been taken, that this train could not possibly have become so disordered as it was represented. It arrived, and showed that my predictions were not far from what had actually occurred; and it was fortunate that preparations had been made, for our relief, to go from here by water, for the whole train I found, on its arrival, completely broken down, and could not possibly have gone any further. I beg leave to call your attention to Lieutenant Frost's report in the appendix. Mr. Raymond, the guide, returned to-day, having crossed the party of men and horses without any trouble by the Indians, who are generally a very hard-working race of people when they are made acquainted with the work required to be performed.

September 27.—I now commenced to prepare the train to cross the Cascade mountains with such stores as could be conveniently carried. All the wagons were examined and thirty left here, together with one hundred and ninety mules, which, from weakness, were unable to leave here before they were rested. Good grazing was to be found, and I there-

fore placed them in charge of our guide, who intended to remain here; and, with Indians to guard them, they would become sufficiently recruited to drive down by land to Fort Vancouver this fall. The wagons could be of no use below, and were as well here as to have had them shipped to Fort Vancouver; besides, this could not be done, as the stage of water did not admit of it, and, even if carried to Oregon City, they could not be used.

The boats having all arrived, the Indians returned without the headman—a Canadian, who had entire control of them—he having been detained at the falls to act as interpreter to Major Ruff. This embarrassed me very much, and I therefore was compelled to hire one to assist me while here.

September 28.—Captain Van Buren's company left last evening for Oregon City. Lieutenant M'Lane took his departure with the broken-down horses of the command this morning, which, in my opinion, should have been left here; but, having no control over them, they were driven across to Oregon City, losing nearly two-thirds while crossing the Cascade mountains. The teams having been all properly examined, the march was commenced by them this evening.

September 29.—Nothing of any importance was done to-day; the weather continued pleasant, but every appearance of heavy winds. Lieutenant Denman and family were still here; also, a guard of nine men and a large quantity of company and private baggage, to go to the Cascades. I therefore wrote to the commanding officer to return the boats, which would enable me, with the assistance of the raft, to finish the duties at this place—which was done, and they arrived in due time.

September 30.—The raft was loaded to-day with old harness and heavy private boxes that were too large to be placed in a Mackinaw boat, and all necessary arrangements made for its departure in the morning. Eight trusty men were placed on board, sufficient to manage it and relieve each other from here to the falls.

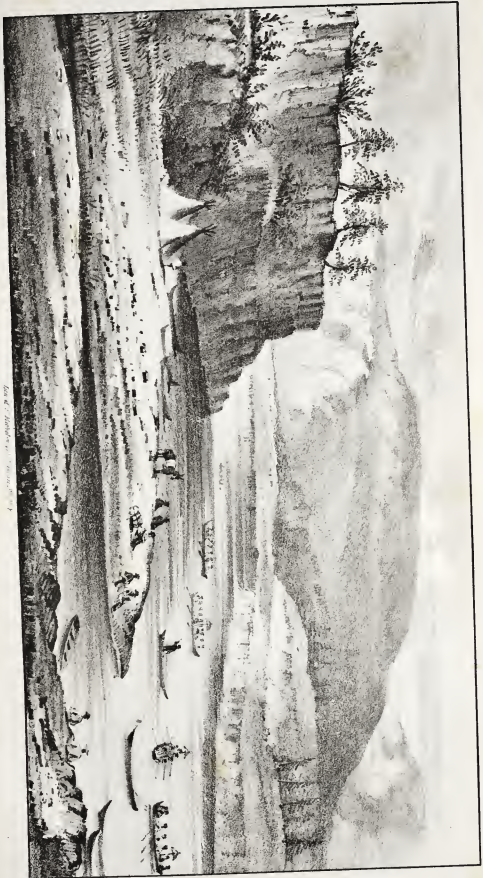
October 1.—The party designated to go with the raft left at 6 o'clock this morning. The day was calm, and it moved off quite manageable; and I heard early the next morning that it was progressing finely.

CHAPTER IX.

Our journey to Fort Vancouver by water, 90 miles.

October 2.—The balance of the stores were all placed in the boats, with the assistance of an increased number of canoes, and we left the Old Mission with delight, as to the hope of soon arriving at the end of our journey. The day remained quite calm and warm until the afternoon, when a light breeze sprang up, which continued to increase as the sun went down.

The bold mountain scenery soon commenced on both sides of the river, rising gradually in some places from the water's edge, covered with pine, and capped with scrub oak, only fit for fuel, while other parts of



DEPARTURE OF THE TROOPS FROM THE DALLS.

From the "Herald," 1864.



the mountain presented steep rugged cliffs, sometimes rising perpendicularly from the water, and in many places broken into rugged and steep cliffs. About thirteen miles below the Old Mission we passed several rocks standing in the river, which had once been a burying ground for the Indians; their object doubtless was more to secure their dead from the prowling beasts of prey, than any romantic feeling on their part. There were many places for the deposit of the dead, which reminded me very much of old tombs in a dilapidated state, but, on a closer examination, were found to be made of bark and supported by sticks and boards driven in the ground.

The main channel of the river here passes between these rocks and the projecting rocks from the shore, through which there is a large arch, that can be seen in low water, and presents a singular appearance. The ravines or deep gorges run far back in the mountains, and are covered with pine and oak. The scenery altogether, thus, far, was very picturesque.

Seven miles from here we came to an Indian village, on the right bank of the river, in a small valley, where the troops under Major Tucker crossed, and, passing back over the mountains, they followed a trail which leads to the falls, and thence to Fort Vancouver; it is a small bridle-path, but entirely impracticable for a wagon-road. The river takes a bend here, showing high mountains on the right bank of the river; those of the left form something of a valley, with but little timber, compared to the opposite side: and I may remark here that, since starting from the Dalles, the timber on both sides of the river has appeared very small, with but few exceptions.

The evening was fast drawing to a close, when we met with Mr. Prew returning with one boat for me, who had been all day making 22 miles. As we had a fine breeze, which was increasing, from the northeast, I left the canoe and took the barge, leaving it to follow, and was soon out of sight. The river began to approach the high mountain range, and in many places it reminded me, as the moon shone upon the scenery, of the highlands of the Hudson river. I continued down the river with increased rapidity, as the wind began to blow a gale from the northeast.

Prew had given me very unpleasant tidings, that, since the evening of the 1st, nothing had been heard or seen of the raft, since it passed down, with a sail hoisted, going rapidly, and was then only fifteen miles from the head of the falls. There appeared no disposition on their part to stop, and, as he would have seen them while ascending the river, I was satisfied they had violated my orders, and perished on the falls. This sad information, the dim, hazy appearance of the heavens, and the roar of the Great falls, as we approached them, made it anything but agreeable; and, in addition to this, it was near ten o'clock at night, and the wind began to blow very hard, as we approached the falls, which made it very dangerous.

We were now near the rapids, when we were struck by a squall, and, before the Indians could lower the sail, we found ourselves on the flat rocks, but soon became righted, and, taking to our oars once more, we passed down the right bank of the river, as if we were on the wings of the gale, and rounded to between the shore and the island, where one of the clerks

and agent had landed, and were out on the rocks with a signal-light for those coming down the river.

From this point up the river the scenery is very beautiful, and the drawing of it is a fair representation of the country along the banks of the river to its mouth.

I made my bed among the willows, each contributing his all, in the way of blankets; and, by the assistance of the thickets and a fire which our Indians kept up, the night was passed much more comfortably than could have been anticipated, as it was after ten o'clock p. m., and the night much colder than any we had experienced since coming on the Columbia river. We had made forty miles to-day, since eight o'clock, and were within a quarter of a mile of the head of the portage.

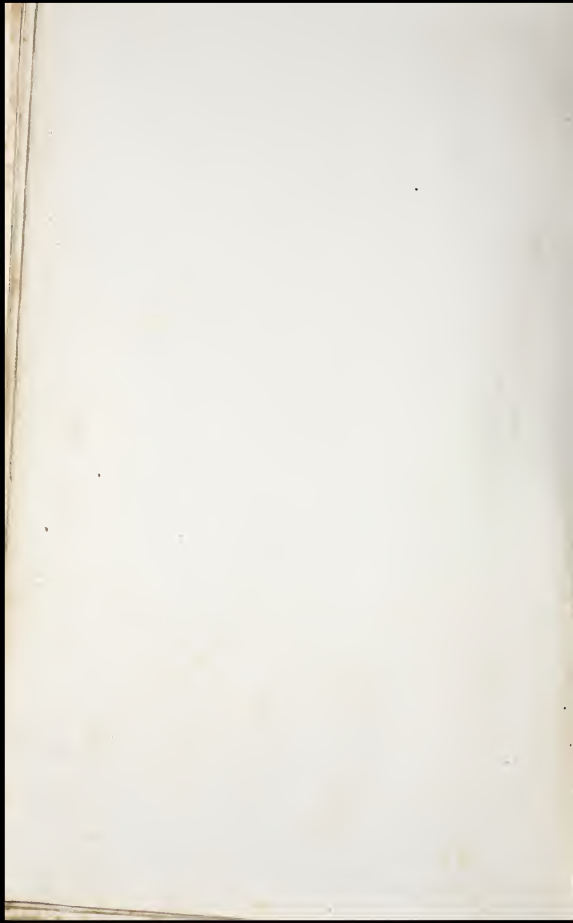
October 3.—The morning began to moderate; still the wind continued to blow from the northeast, which comes down the river, and has the same effect in the change of temperature as the northers have in Texas and Mexico.


As the head of the portage was but a short distance from our encampment of last night, I reached it at an early hour this morning; the boats, which had become a little scattered in the gale of last evening, soon followed; and we were all ready at an early hour this morning for a final debarkation. Each one had his story to tell in what manner he was saved from going over the falls in the fury of the gale; and others were the worse for a hat; and silk handkerchiefs were called readily into requisition by those who had been so unfortunate as to lose their hats in the bustle and confusion of the blow.

To those who knew nothing as to where the portage was to be made at that hour of the night, and in the midst of the blow, which was strong enough to silence the sound of the angry waters as they whirled and boiled among the rocks with deafening sound, it was not an easy task to make themselves safe; and I was glad to see them all arrive without any greater accident.

About a mile from the head of the falls the river changes its direction, and makes a sweep to the right, forming a bend, at the head of which there are three rocky islands, with a few scattering fir trees, where the channel passes between them and the right bank, and which is the commencement of the strong current; the other two are opposite the first small fall. The boats all pass between the shore and islands; descending rapidly, they cross a small chute or fall; and, by the dexterity of the helmsman, they swing into an eddy, where the landing is made, which is the head of the portage, and half way to the foot of the falls. From this point the portage is made either in a wagon or by hand, for about half a mile over a very rugged road that brings you to the foot of the Great Falls, and the head of what is called the Lower Rapids. From thence to the foot of the Lower Rapids it is about three miles, which is passed in boats with some difficulty, but in safety when managed by a skilful helmsman who knows where the different points are to guide his boat.

The cascade or Great Falls of the Columbia river are not more than three-quarters of a mile in length, and there is no part where the water has a perpendicular fall. At the commencement of the rapid the rocks project from the left bank, and form a reef partly under water, until it





with the
the eddies below, where they were
shoal water among the rocks, without being injured, and
bruised.

While passing over the rapids they were kept under the water ; sometimes thrown to the top by the pressure beneath, which enabled them to breathe for a moment, but were soon drawn under again. They were much exhausted, and remained until daylight among the rocks, when one of them passed down the river, and did not meet the other till near the close of the day, not being aware that any person but himself was saved. Thus ended the lives of six valuable men, as well as the destruction of the raft and the stores on it, which was of no importance compared with the loss of the men.

The boats were immediately unloaded, and Mr. Prew, the Canadian who had charge of the Indians, deeming it too dangerous at this stage



CONTINUATION OF THE VIEW OF THE CASCADE OR GREAT FALLS OF THE COLUMBIA RIVER



COMMENCEMENT OF THE CASCADE OR GREAT FALLS ON THE COLUMBIA RIVER



nearly crosses to the upper island. This is the first ripple where the water receives an increased velocity, and glides swiftly down for about a quarter of a mile, when it passes a high rock, and, in a short distance meets with some half dozen more, where it commences to boil and foam with all its fury. The river between the island and left bank contracts considerably, and the whole column of water of the Columbia river passes down over masses of rock, forming in its way whirlpools through the whole distance, which causes the water to roll up as if there were some immense pressure below. It makes a magnificent scene; the sublimity of it can hardly be described or surpassed. A continuation to the foot of the rapids will make a distance of four miles; and there are several pitches, which are made by the several ledges of rock extending across the river, which make it dangerous, particularly when the river is low, as was the case at this time; but in high water not only the lower rapids are passed in ascending, but the big falls also, and, in fact, all the obstructions which are not only met with here and the Dalles, but other places of less importance.

On arriving at the portage this morning, I learned that parts of harness and pieces of boxes had been found in the eddies below the falls, which fully confirmed my fears concerning the raft.

The sun had scarcely risen above the mountains, when I discovered two men on the opposite side among the rocks, and from their destitute condition I was satisfied they were some of the men I had sent with the raft. A canoe was despatched, and returned with them, from whom I learned that those in charge of the raft had continued to descend the river during the night of the 2d, instead of lying by, as I had directed, which brought them to the falls about two o'clock in the morning, and much sooner than they had anticipated. Finding themselves in danger, they tried to cross to the right bank, but, being unsuccessful, were carried on to the first rapid; and so great was their surprise that they were not conscious of their real danger until in the heaviest of the water, when, in an instant, all went down, and six men were buried within the whirlpools. These two men who were saved, having but little clothing on, were better prepared to extricate themselves than the others, who had made no preparation to meet this awful catastrophe; and not coming in contact with the massive rocks, were carried by the heavy columns of water to the eddies below, where they were thrown by the counter currents into shoal water among the rocks, without being injured, except a little bruised.

While passing over the rapids they were kept under the water; sometimes thrown to the top by the pressure beneath, which enabled them to breath for a moment, but were soon drawn under again. They were much exhausted, and remained until daylight among the rocks, when one of them passed down the river, and did not meet the other till near the close of the day, not being aware that any person but himself was saved. Thus ended the lives of six valuable men, as well as the destruction of the raft and the stores on it, which was of no importance compared with the loss of the men.

The boats were immediately unloaded, and Mr. Prew, the Canadian who had charge of the Indians, deeming it too dangerous at this stage

of the water to attempt to pass the boats over the falls, assembled the Indians, and with about forty of them transported three Mackinaw boats, one yawl, and a whale-boat, half a mile over one of the most rugged roads that I have travelled, filled with rocks, and through a thick pine forest. The stores were carried in a wagon, and every preparation made by sundown to leave. This was performing the work with more rapidity than any movement that had been made when the boats had been heretofore taken down by water, and it may never be equalled again, much less surpassed. Having no further use for the canoes, which had been employed at the Dalles to assist in transporting the stores to the falls, they were all discharged, and a fine large Mackinaw boat substituted, which was too large to bring over the falls when the first were brought to the Dalles.

The banks of the river about here are extremely rocky; the mountains are high and steep, and thickly covered from their base to the top with pine, fir, and hemlock. The timber on the right bank of the river is much better than that on the left, as the mountains are not so high, and the land more rolling. Much of the timber has been destroyed by fire along this part of the river, as it is through the Pacific.

October 4.—At sunrise the loading was renewed, and finished at half-past eight a. m., when the boats were taken by Mr. Prew to the foot of the rapids.

The detachment under Captain Claiborne were marched down; Lieutenant Denman and his family also walked to the foot of the rapids, as they were at this time considered dangerous to venture even a boat, and it was thought better to let the stores go, and the men could walk.

I had heard much of the petrified forest, and went in search of it, but found nothing of any importance. The small pieces of petrified wood which I found were of an inferior quality; but the specimen which I procured and brought with me is probably six inches in diameter. I was, however, much gratified and well paid by the walk, as I was enabled to examine a burial-ground of the Dalles Indians, which was on the high banks of the Columbia river, in sight of the rapids, and one of the most secluded and romantic spots Nature could have formed. It was in a large, dense grove of hemlock and fir trees, whose limbs spread a shade over the whole spot, almost excluding the light of heaven from penetrating, which seemed, in defiance of the foliage, to shed its rays, now and then, upon the tombs of the dead.

There were several repositories, rudely made of boards placed upright, and covered with the same material and the bark of trees. Many had crumbled away by the effects of dampness and the hand of time. From their dilapidated state, heaps of bones of all sizes and ages were lying about, and, I may add with propriety, all shapes, as far as the head was considered; for these people have a singular fancy, peculiar to themselves, of flattening the forehead to correspond with a line to the crown of the head, and the back of the head is made perfectly flat. Many of these skulls had been removed and scattered through the woods by persons, whose curiosity being satisfied, had dropped them where the wagon-wheels had pounded them into dust.

Towards the lower part of the rapids there is quite a clearing, made

at what was once an Indian encampment, where the timber is very fine and easy of access.

Having all arrived, we soon got under way—each boat unfurling what little sail the Indians could raise on board; for they are never backward in spreading their blankets whenever a fair wind offers, which sometimes does not occur for weeks. The wind was fair, and as we strung out we produced quite a fleet—the whole number being five Mackinaw boats, one barge, and one whale boat.

The scenery continued to present a bold appearance until we descended about half way to Vancouver, at a point called Cape Horn. From this part of the river the mountains begin to fall off gradually, until it shows on the left bank a flat country, its banks and islands studded with sycamore, while the hills on the right are covered with pine. Ten miles below Cape Horn the islands are large, and being filled with sycamore, resemble very much the Mississippi valley. About six miles above Fort Vancouver we passed a saw and flour mill, the property of the Hudson's Bay Company.

From here the mountains recede until the country on the left bank becomes quite low, and forms a beautiful country for agricultural purposes between Vancouver and Oregon City, which is twenty miles from the fort. The whole of the boats arrived at Fort Vancouver at 5 o'clock in the evening, having ran forty-five miles, and accomplished the distance from the Dalles in three days, being ninety miles, and were detained one day at the falls. Here we met with that portion of the command which had left several days before us; some of the parties had only arrived one day before, having been detained by heavy head winds.

October 5.—The fogs and smoke had become so thick that it was with great difficulty that we could cross the river, and the schooner was necessarily detained here. The troops, so soon as they could get over, took up the line of march to Oregon City, which is about twenty miles by land from Fort Vancouver, where they were glad to reach, so as to say once more that they had again arrived at the long looked for place of rest, which all were delighted to see.

The city of Oregon is not a very prepossessing place in its appearance, for, like all new places in the western country, the stumps and half-burnt trees lie about in every direction. It is immediately at the Willamette Falls, hemmed in by the river in front, and a ledge of rocks immediately in rear and very close to the city.

To get from Fort Vancouver to Oregon City, which is the capital of the Territory, it takes one to be a good woodsman, as there is nothing but a crooked bridle-path through as dense a forest as can be found in any country. In going to and coming from Oregon City, Captain Engalls and myself lost ourselves repeatedly, and that, too, within a mile of the city.

Fort Vancouver, which is the headquarters of the Hudson's Bay Company, is on the right bank of the river. It is situated on a beautiful plain, about five miles long, and probably is three quarters of a mile wide. The country gradually rises, and runs back for ten or fifteen miles, passing through several plains, some of which are cultivated. On one of these plains there is an excellent seminary, where the children from the fort and the neighborhood are educated.

Immediately in rear of the fort, and on the rising ground, the company of artillery under Brevet Major Hatheway have put up temporary quarters, and have made themselves very comfortable. This place would be a fine location for troops, and indeed it is the only spot between here and the mouth of the river where the mountains will admit of it. As to Astoria, its location is on the side of a mountain, and about seventeen miles from Cape Disappointment, which is at the entrance from the Pacific. Astoria has eleven houses, or huts, for there are not more than two or three that are fit to live in. There is no regularity in the place, and no streets, and the hemlock and fir-trees grow within three steps of their doors.

The site of Fort Vancouver and that of the Dalles are the only two points where a proper location might be made for a post.

There is not one feature in the country east of the Blue mountains to recommend it. The plains which we passed over for days and weeks through dust and heat, and sometimes thirst, are enough to appal the stoutest hearts, and with the exception of the country about the Grand Ronde and Blue mountains, which are covered with verdure, with tall fir and spruce pine of the finest description, the eye never sees a tree, and seldom a mountain, except in the distance. The Blue mountains have their charms, for they dispel the unvaried sight so long looked upon, and present to view something that gives new life and vigor to all who pass them. I cannot say that of the country which you pass after crossing that range of mountains to the Columbia river. The soil is of a light clay, in many places very sandy, particularly on the Columbia river; for eighty miles down it, and up to Fort Wallawalla, is entirely barren and sterile, as much so as is found on the borders of Snake river. From the point where you strike the Columbia river to the Dalles, and particularly about John Day's river, it is extremely broken and uneven. The sufferings of the animals were along here much greater, and many more were lost than on any other portion of the route.

This route is very destitute of timber. This side of Fort Laramie, pine in small quantities is found in the distant mountains. In the vicinity of Deer creek, and up to the Morinon ferry, cedar and pine can be obtained from the mountains in great abundance. At Soda Springs we find it equally as plenty: from there to the Blue mountains it is not to be met with. These mountains are thickly covered with as fine fir and spruce pine as you will meet with from the Dalles to the Pacific ocean. At these points, however, timber could be procured, but at a considerable expense, to erect a railroad from the Missouri to the mouth of the Columbia river, whenever it may become practicable. I look on it as the best natural highway on the North American continent. The worst place to encounter is the Cascade mountains—not from their height, but because travellers arrive late in the season, when their animals are exhausted; at any other time they could pass without difficulty.

From the North Platte to the Dalles the trail passes over a sterile waste, which can scarcely ever be inhabited, unless there are more facilities in getting to and along the route than exist at present, or will probably for many years. Bear River valley is the best, except that portion in the vicinity of Fort Hall, which is extremely limited. The climate is severe, and snow falls generally very deep, and ice is found in the summer.

I made inquiries relative to the cultivation of the soil at Forts Hall and Boissé, and learned that it would be attended with much difficulty, great uncertainty, and no profit.

The country on the Columbia river, I think, has been much exaggerated, and that portion of it from the Dalles to the Pacific ocean does not come up to my expectations. The mountains approach the river so near that it leaves neither valleys nor plains of any importance, except in the vicinity of Fort Vancouver, which is extremely beautiful. The country between this point and Oregon City is of a light rich soil, rolling enough to make it fine for cultivation, and is covered with timber of the largest kind, which extends from the Columbia to the Willamette; and the land from the base of the Cascade mountains to the junction of the two rivers will bear comparison with any in the States. Grain is raised in this country in great abundance, consisting of oats, barley, and wheat; corn cannot be raised. The wheat on Klamet river, near the seacoast, is, I think, of an inferior quality, as the sample which I procured will show. Vegetables of the finest kind grow without the least trouble on the Columbia, although the season during the summer is extremely dry; but from the nature of the soil, there is much transpiration water which keeps the ground moist, and only dries as the river gradually falls.

On arriving at Fort Vancouver, finding the senior quartermaster of the Pacific station there, I gave no instructions nor made any changes in the Territory relative to the department, except so far as related to the want of the command to which I belonged. During this march I have studied the interests of the department, but, separated as the command was, in three divisions, you can readily see under what disadvantages I was compelled to labor; besides, the condition of the train when it left Fort Leavenworth was not such as should have been furnished a command destined to cross the Rocky mountains.

Your attention is particularly called to the report of Lieutenant Frost, in the appendix.

My duties had now nearly come to a close, and from this time to the 11th of November I was employed in paying off the teamsters and collecting money; which I was enabled to do, through the kindness of Mr. P. S. Ogden, the chief factor of the Hudson's Bay Company, who advanced money enough at par to finish my duties, besides turning over to Captain Engalls a few thousand dollars for the use of the department. The kindness of Mr. Ogden, in many instances, in accommodating the officers of the department, places it under many obligations to him.

I do not know that I can make any better suggestions relative to the establishing of posts than have already been made by those more competent than myself. The route has already been occupied by troops at Fort Laramie and Fort Hall; the latter, I have already remarked, is entirely too far to be properly supplied from Fort Leavenworth or Fort Vancouver, and probably one at the Dalles would answer every purpose. It has also been thought that one at the head of the Willamette valley would be a proper place, as the Indians in that direction are very hostile and troublesome to travellers going to and from California. As to Puget sound, I have no great information; but, from the number of Indians in that vicinity, I should think it the proper place for the principal depot and

for a large garrison ; besides, the navigation from the Pacific through the sound, which is about 150 miles, is entirely free and uninterrupted. I see no reason why a route cannot be established between Nisqually and Fort Walla-walla ; then they could move during the year through this part of the country, and even as far as Fort Boissé, which would supersede the necessity of keeping up Fort Hall, unless it can be supplied from the Mormon settlement. It is scarcely necessary for me to say that mounted troops are indispensably necessary for these remote posts, for this has long since been known to the department.

My duty having ended, I left Fort Vancouver on the 11th of November, and, owing to the great fogs which prevail during the fall and winter on the river, did not arrive at the mouth of the river until the close of the month, which prevented me from reaching San Francisco in time for the steamer of the first of December ; but I left that place on the first of January, passing by Monterey, San Diego, Santa Barbara, Mazatlan, Acapulco, and Chagres, by the way of Panama and the isthmus, touching at Kingston, and arrived at New York on the 8th of February ; having travelled over two thousand miles by land, and five thousand by water, between the 10th day of May, 1849, and the 8th day of February, 1850.

I have been much in the field with troops for the last six years : the labor as well as the anxiety of mind which I have experienced while on this march, have been enough to wear down the stoutest frame. The information, however, which I have obtained is herewith laid before the department.

It affords me pleasure to speak of the assistance given to me by Lieutenant Frost, whom I found indefatigable in the performance of his duty as acting assistant quartermaster. He had charge of the regimental train, and conducted it across the Cascade mountains. The loss which was sustained on the march was wholly unavoidable, and can only be attributed to the weakness of the animals for the want of grass. The several wagons which we left on the Cascade mountains will be brought on during the fall ; if not, next spring. I also received great assistance from Messrs. Leech, Bishop, and William Frost ; the latter was attached to the regimental train. These agents used every exertion for the preservation of public property throughout the march.

In making out this report, I have endeavored to condense it as much as possible—so much so, that I have not given that description of the country which may probably be expected ; but I hope that while the drawings will partly make up the deficiency, the few remarks I have made without any comment will be found together fully explicit to give the department some idea of what we passed over and met with on the march to Oregon City ; and if it will give the least satisfaction to you, as the chief of the Quartermaster's department, I shall feel myself rewarded for the no little trouble I have taken to arrange this journal for your inspection.

All of which is respectfully submitted for your consideration.

Respectfully, sir, your obedient servant,

OSBORNE CROSS,
Major and Quartermaster.

To Major General TH. S. JESUP,
Quartermaster General U. S. Army, Washington City, D. C.

APPENDIX.

FORT KEARNY, *June 1, 1849.*

COLONEL: I have to request a board of survey on the transportation furnished (at Fort Leavenworth) the troops under your command, destined for Oregon.

Respectfully, your obedient servant,

O. CROSS,

Major and Quartermaster.

To Colonel LORING,

Commanding Rifle Regiment.

[Orders No. 105.]

HEADQUARTERS MOUNTED RIFLE REGIMENT,

Camp on Bear river, July 27, 1849.

A sufficient stable guard will be detailed each day from the teamsters of each division, and placed in charge of a wagon master, as a guard for the mules of the regimental and supply trains. The wagonmaster will report to the officer of the day for orders; he will be expected to remain up during the whole night, and will be held responsible that his guard is vigilant.

By order of Colonel Loring.

J. P. HATCH,

Adjutant Mounted Rifle Regiment.

ADJUTANT'S OFFICE, MOUNTED RIFLE REGIMENT,

Camp at Grand Ronde, September 9, 1849.

MAJOR: The Colonel commanding directs that you proceed without delay to the Dalles of the Columbia, or to such point as you find necessary, to make arrangements for the transportation of this command to Oregon city, and forwarding to meet us the provisions already ordered to be sent.

Should it be found impossible to get transportation for the command, you will cause ferry-boats to be in readiness to cross the troops and animals at the two ferries. You will also make such arrangements as you judge necessary for facilitating the passage of the wagons over the Cascade mountains.

Should you meet the bearer of despatches (Mr. Brisbo) returning with others, you are authorized to open them for your information and guidance.

Lieutenant Lindsay, with two men, will accompany you to the Dalles as an escort. Should information be received as to the state of preparation for forwarding the provisions and transporting the command, he has been directed to return from that place; but should there be no such information, he will accompany you to Fort Vancouver, or until he meets such information, and return from there without delay. You will hire horses for the escort going and returning.

If you deem it necessary that Lieutenant Lindsay with the escort should proceed to Fort Vancouver or Oregon City, you will forward by express such information as you judge to be of importance, and Lieutenant Lindsay will return to the command from such point as you can dispense with his services.

Very respectfully, your obedient servant,

J. P. HATCH,

Adjutant Mounted Rifle Regiment.

Major O. CROSS,

Quartermaster U. S. Army.

DALLES. September 13, 1849.

CAPTAIN: I arrived here yesterday, in three and a half days from the Grand Ronde, a distance of two hundred and five miles. Judging from the state of the road which the troops will travel, I am induced to believe that it will take them until the 26th to arrive here—a portion may come sooner.

I was much pleased to meet Lieutenant Fry, with the three boats to transport the command across the river, as well as to carry such stores as the command may deem proper to take for the present, with them to Oregon City, but it is important that every boat should be sent that can come to this place.

I have not heard from you, having passed the express without meeting him. You have, no doubt, given me all the information relative to procuring transportation; but I again repeat, if whale boats, or any more Mackinaw boats, can be procured, I shall be glad if you will forward them immediately, as they will, no doubt, arrive in time. If it is possible to send Indians to work the two large boats now with the vessel, I desire they will be sent. The two whale boats which I understand are at Fort Vancouver will be of great service in facilitating the transporting of troops and stores.

It is all important that oats or corn should be sent here; if you cannot send more than one hundred bushels, it will do for the animals that are kept to transport the stores at the mile portage.

I am extremely gratified to find that you have been so prompt in arranging the only transportation available for the troops. If boats can be procured, Lieutenant Lindsay will take charge of them.

Respectfully, sir, your obedient servant,

O. CROSS, *Major and Quartermaster.*

Captain R. ENGALLS,

Assistant Quartermaster, Vancouver, Oregon.

N.B.—I am entirely destitute of funds. Money must be raised by drawing drafts on the Quartermaster General. I am surprised that funds before this have not been sent from San Francisco. Please notify the quartermaster at San Francisco, without delay, that all the teamsters will have to be kept in the employment of the government until funds are raised to pay them.

O. CROSS,
Major and Quartermaster.

DALLES, *September 14, 1849.*

CAPTAIN: I have the honor to inform you, for the information of the commanding officer, that I reached the Dalles yesterday, in three days from the Grand Ronde, distance two hundred and five miles.

I regret that I missed the express, as the mail contained all the information which was required. I was much pleased to meet with Lieutenant Fry, who had that moment arrived, as I reached the Dalles, with the transportation furnished for our use. It consists of three Mackinaw boats, each carrying about two tons. There is a vessel below the Cascades, which Lieutenant Fry tells me will carry about fifty tons. I shall leave here to-morrow to examine her capacity.

I have written to Captain Engalls to send up, if possible, more boats for our use, of any kind, to operate between here and the half-mile portage, and have despatched Lieutenant Lindsay to take charge of them, and to return with the least possible delay.

The stores have arrived which were written for by the commissary, and more on the vessel if he requires them. My plan is this; cross such animals as can travel to the ferry opposite Fort Vancouver, about twelve miles below here; send wagons to transport the stores at the portage; send such portion of the command by land as cannot be transported in the vessels.

Place on her merely the stores actually necessary for the troops at their place of destination; and while that is transported, and the vessel returns, the three boats can carry down such stores as may be required this fall, leaving the balance of the stores, wagons, broken-down mules, &c., under the charge of a detachment and acting assistant quartermaster, until it may be deemed necessary for them to be forwarded to such place as may hereafter be designated. The gentleman who owns the ferry opposite Fort Vancouver is here, and will take over the animals for two dollars per head, charging nothing for the command, if there are many. He informs me that grass is found in great abundance all the way down to his ferry, where they are now engaged in cutting hay for the command. There is no other ferry, and we shall be compelled to cross ourselves below here, with the assistance of Indians whom I have employed, if they can be depended upon.

I am sorry to say that the Indians who came up with the boats are all getting sick with the ague and fever; whether they will remain depends upon circumstances.

I hope to return from the Cascades in time to meet you here. I cannot

make any arrangements, for the present, relative to crossing the Cascade mountains, for I do not know what animals will be able to go, or how many you contemplate starting; that can be done hereafter in time to meet them.

I have received no forage, but have again urged the necessity of at least a small quantity for the use of the animals that will be kept engaged while transporting the property.

There is fine grazing within five miles of this place, where brokendown animals could be well taken care of.

There are here buildings enough, at the Old Mission, to meet the wants of a large detachment, or even a company, which they will not more than find at Oregon City.

I would be glad if Brisbo can be sent to me with the letters and public documents which have been sent me, after the same have been opened for the information of your office.

Respectfully, sir, your obedient servant,

O. CROSS,

Major and Quartermaster.

Brevet Captain J. P. HATCH,
Adjutant R. M. R.

DALLES, *September 23, 1849.*

CAPTAIN: I shall be at Fort Vancouver, I presume, in less than one week. Should the rifle regiment arrive, and require any assistance in the way of land transportation, you will furnish it on the requisition of the commanding officer.

You will also proceed with them to Oregon City, and point out the quarters rented for their use, and make such arrangements to meet their wants as may be necessary and proper.

I desire you will make preparations to send forward some four to six hundred bushels of oats, or as much as you can procure, to meet the teams that will cross the Cascade mountains about the 6th of October. They will leave here about the 1st of October, and are extremely thin, and will require forage on the route.

I have dispensed with Mr. Switzler's services.

I need not call your attention to the necessity of looking with a careful eye to economy, for you are aware that in all cases it becomes indispensably necessary. I have this day drawn on you for \$292 96, in favor of Nathan A. M. Dudley, which you will please pay at sight.

Respectfully, &c.,

O. CROSS,

Major and Quartermaster.

To Captain R. ENGALLS,
Assistant Quartermaster, Fort Vancouver, Oregon.

DALLES, September 27, 1849.

DEAR SIR: The teams will be examined, as well as the wagons, this morning, and all the mules and wagons that are not fit to undertake the journey across the Cascade mountains will be left at this place, subject to my instructions hereafter.

I desire that the teams which you take with you may carry the quartermaster's stores which I am responsible for, as well as those under your own charge, not placing in each wagon more than two hundred and fifty pounds.

On arriving at Oregon City all transportation will be turned over to Captain Engalls, assistant quartermaster, reserving out of the best sufficient to meet the wants of the command at Oregon City.

As this property is entirely placed under your charge, as the acting assistant quartermaster, much of it you are responsible for, as well as what has been placed under your directions belonging to me. *I wish no interference in any manner, directly or indirectly, by any officer who may accompany the train.* As the acting assistant quartermaster, *you alone* are responsible for its safety. I feel assured that your good judgment will, in all cases, point out the course you should take for the protection and preservation of the public property.

Messrs. Leech and Kitchen will accompany you, as well as Mr. William Frost. I have written to Captain Engalls to send forward forage if it is in his power, which he will no doubt do.

You will inform me of the number of extra-duty men you may require to accompany you on the route.

Respectfully, sir, your obedient servant,

O. CROSS,

Major and Quartermaster.

To Lieutenant D. M. FROST,

Acting Assistant Quartermaster, R. M. R.

DALLES, September 29, 1849.

CAPTAIN: After you left here, the wagons loaded, and the quantity of freights collected from all parts of the camp, I find much more than could possibly have been anticipated yesterday: so much so, that I am compelled to inform you that one of the boats now below the rapids, together with the one at the half-mile portage, will be required to take all that will be sent on the raft, and the boats that will return. The mules have all been turned over to Mr. Raymond, and sent to graze. I have authorized Mr. Raymond to employ Indians to go back to the Blue mountains and collect all horses and mules that may be left behind, or may be found in the possession of Indians, as I have learned of several in their possession, on the Eumatilla river, which will be kept there, they inform me, until some one is sent to receive them.

Respectfully, sir, your obedient servant,

O. CROSS,

Major and Quartermaster.

To Brevet Captain J. P. HATCH,

Adjutant, R. M. R.

DALLES, October 1, 1849.

DEAR SIR: * * * I have also to request, for the information of the Quartermaster General, that you will report to me in writing the substance of your verbal report at the Dalles, of the state of the train; the repeated interference of officers entirely disconnected with the department on the route from the "Grand Ronde;" what number of wagons were broken up, and by whose order; also if in your opinion it became necessary to do so.

Respectfully, sir, your obedient servant,

O. CROSS,

Major and Quartermaster.

To Lieutenant D. M. FROST,

Acting Assistant Quartermaster R. M. R., Oregon City.

FORT VANCOUVER, October 11, 1849.

CAPTAIN: Your letter of this day's date, to Captain Engalls, assistant quartermaster at this post, has just been laid before me. I regret that the quarters which were hired are found to be insufficient in quantity, as I presumed ample quarters, under the existing state of things in Oregon, had been obtained to meet the wants of the command, reduced as many of the companies are.

It is incumbent on me, before I relinquish my duties in this Territory, to see that every provision is made for the comfort of the regiment which I have been serving with; and I hoped, from what was said the other day, that I had done so.

As regards the *quality*, you must be aware that it is entirely beyond the control of this department to regulate it.

Captain Engalls has been directed to proceed to Oregon City, and endeavor to remedy the complaint stated, if possible. There are many changes which the buildings can undergo, which were mentioned by me; by breaking down partitions, will give more room, but it must be done by the command, unless otherwise directed. In a place like the city you are now in, you readily see the impossibility of being governed by the quality of the buildings; and where there is a scarcity, the troops have to conform to the exigencies of the existing state of things.

If in the opinion of Colonel Loring and Major Vinton, the senior quartermaster on the Pacific station, there are not sufficient quarters already rented, more must be had.

With Captain Engalls, I was ready the other day to assign the troops; but, scattered as the buildings are, I thought it more prudent for the command to be regulated in their assignment as the Colonel might deem proper. I felt assured, by causing the families to take the quarters intended for them, without entering the bachelor's building, and single officers assigned two to a room, there will be found enough.

There has never been a call made on me as to the precise number of officers and troops required to be quartered, and when I arrived here I gave no instruction to Captain Engalls what number to provide for; when it is done, he may find it necessary to procure more.

When I learn that the troops are settled in quarters, then my duties

cease, in conformity with my instructions, and I shall accordingly inform your office.

I shall myself visit your city previous to my departure.

Respectfully, sir, your obedient servant,
O. CROSS,
Major and Quartermaster.

To Brevet Captain J. P. HATCH,
Acting Assistant Adjutant General,
Regiment Mounted Riflemen, Oregon City, Oregon.

FORT VANCOUVER, OREGON TERRITORY,
October 20, 1849.

CAPTAIN: In my letter of the 12th instant, I requested a suitable person to be detailed from the command, to take charge of the public property now at the Dalles. In answer, you say that "at present the commanding officer does not know of a suitable person, capable of guiding the animals over the mountains." I think you have misunderstood my letter; it is to take charge and receipt for the same. If you have no person who can enter on such duties until the arrival of the troops from Fort Hall, which I learn will probably be at the Dalles this winter, please inform me by the bearer, as it is the only unfinished business which keeps me in this vicinity.

There are thirty wagons and about one hundred and ninety head of animals still remaining there. Mr. Raymond has been placed on other duty by the Colonel, which causes him to forfeit his contract with this department.

Respectfully, sir, your obedient servant,
O. CROSS,
Quartermaster U. S. A.

To Brevet Captain J. P. HATCH,
Acting Assistant Adjutant General,
Eleventh Mil'y Dep't, Oregon City, Oregon Territory.

NOTE.—These mules were brought down to Fort Vancouver before my departure from that post.

O. CROSS,
Major and Quartermaster.

PHILADELPHIA, May 20, 1850.

OREGON CITY, October 26, 1849.

MAJOR: In reply to your communication of the 24th inst., asking me (from my knowledge and experience, whilst in Mexico and elsewhere, relative to trains) to state the condition in which the entire train started from Fort Leavenworth to travel to Oregon City, and also as to the capacity of the teamsters employed in said train, I have the honor to state, that the train started from Fort Leavenworth in a condition wholly in-

competent to perform the service required of it. The teams were very poor, feeble, and small, having just passed a winter in which hundreds had perished. As an evidence of the condition of the mules, I would merely state that I was obliged to call in the aid of men to assist teams in starting off the camp ground, on a level road, and these teams were to perform a journey of two thousand miles, overloaded, and *without the aid of a single extra mule!* The wagons were so insufficiently supplied with extra tongues, hounds, &c., that we were obliged to send back for an additional supply before we had travelled fifty miles, having exhausted those with which we started. The harness was bad, many of the hames being made of cotton wood.

Many of the teamsters had formerly driven in Mexico, and were good drivers; but by far the largest number were totally unacquainted with their duties, having hired on small wages for the purpose of going to California; and other teams, again, were driven by soldiers, who, in addition to total ignorance, were averse to driving, and of course took no interest in their teams.

I am, sir, very respectfully, your obedient servant,

D. M. FROST,

Lieut. Mounted Rifles, Regimental Quartermaster.

Major OSBORNE CROSS,

Quartermaster United States Army, Fort Vancouver.

OREGON CITY, October 26, 1849.

MAJOR: In answer to the second paragraph of your letter, I have the honor to state that, although you left the train in my charge as acting assistant quartermaster, yet the commanding officer of the escort, Brevet Lieutenant Colonel J. B. Backenstos, having in the first place assumed command of "the entire train, and all connected with it," in written orders, proceeded to give orders to the quartermaster's agents, without my knowledge or consent, and to enforce obedience, and, in the exercise of this assumed authority, abandoned wagons and property, without consulting me, and without my consent, and against my remonstrance, so that I was deprived of all power to protect the public property left by you in my charge, as well as that in my own possession.

Very respectfully, your obedient servant,

D. M. FROST,

Lieut. Mounted Rifles, Regimental Quartermaster.

Major OSBORNE CROSS,

Quartermaster United States Army, Fort Vancouver.

I have here attached a list of prices of a few articles, which will give some idea of the state of the market on our arrival at Fort Vancouver:

Oats, per bushel	-	-	-	-	-	\$1 50
Wheat, per bushel	-	-	-	-	-	2 00
Beef, per hundred	-	-	-	-	-	10 00

Fresh pork, per lb.	-	-	-	-	-	\$0 25
Mutton, per head	-	-	-	-	-	4 00
Lumber per thousand	-	-	-	-	\$60 to 100	00
Onions, per bushel	-	-	-	-	-	6 00
Cabbage, per head	-	-	-	-	-	50
Turnips, per bushel	-	-	-	-	-	2 00
Potatoes, per bushel	-	-	-	-	-	2 00
Eggs, per dozen	-	-	-	-	50 cts. to 2	00
Blankets, per pair	-	-	-	-	-	18 00
Linen	-	-	-	-	-	1 25
Common cotton	-	-	-	-	-	25
Box of blacking	-	-	-	-	-	75
Common shoes	-	-	-	-	\$3 to 4	00
Fine shoes	-	-	-	-	-	5 00
Common red baize	-	-	-	-	-	1 00
Socks, woollen	-	-	-	-	-	1 00
Cotton socks, per dozen	-	-	-	-	-	7 50
Black silk cravats	-	-	-	-	-	1 75
Madras	-	-	-	-	-	50
Fine blue cloth, per yard	-	-	-	-	-	8 00
Powder, per lb.	-	-	-	-	-	50
Shot, per lb.	-	-	-	-	-	16
Common wooden chairs, per piece	-	-	-	-	-	6 00

Report of means of transportation received, issued, &c., en route to Oregon, by Major Osborne Cross, quartermaster United States army.

	Articles.					Remarks.
	Ambulances.	Horses.	Mules.	Oxen.	Wagons.	
Where received, &c.—						
At Fort Leavenworth.....	2	28	972	.....	160	
Fort Kearny.....			18	60	9	
Fort Laramie.....			14	.....	.....
Fort Hall.....			217	.....	1	
Purchased en route and received.....		13	12	.....	1	
Total received.....	2	41	1,233	60	171	
Issued, &c.—						
At Fort Kearny.....			1	.....	1	
Fort Laramie.....		3	121	.....	20	
Fort Hall.....		7	230	49	32	
The Dalles.....			12	.....	.....
En route.....			3	.....	30	
On hand at the Dalles.....			189	.....	43	
Oregon City.....	1	1	382	.....	45	
Expended en route.....	1	30	295	11	.....
Total issued, expended, &c.....	2	41	1,233	60	171	

Issued to Mr. Glendy by order of the commanding officer.

Animals stolen, died, or left on the road. Broken down wagons—10 left at the Cascade mountains; the balance were broken up to repair others en route.

March of the regiment of mounted riflemen from Fort Leavenworth to Oregon City, showing the distance travelled each day, with remarks, commencing May 10, 1849, and ending October 13, 1849.

Date.	Camps.	Miles.	Amounts.
1849.			
May 10	Marched from camp Sumner to first camp.....	8.000	.....
12	Thence to camp on a small stream.....	9.000	17.000
13	Do.....on a creek.....	15.000	32.000
14	Do.....on a small stream.....	15.000	47.000
15	Do.....do.....	12.000	59.000
17	Do.....(water one-quarter of a mile distant)..	15.000	74.000
18	Do.....near a creek.....	20.000	94.000
19	Do.....four miles beyond the Nemahaw.....	20.000	114.000
20	Do.....beyond Big Vermilion.....	24.000	138.000
21	Do.....on branch of Blue.....	16.500	154.500
22	Do.....do.....	8.000	162.500
23	Do.....do.....	24.000	186.500
24	Do.....on Big Sandy.....	21.000	207.500
25	Do.....Dry Branch, (water scarce).....	13.000	220.500
26	Do.....Little Blue.....	15.000	235.500
27	Do.....do.....	20.000	255.500
28	Do.....beyond the Blue.....	20.000	275.500
29	Do.....do.....	16.500	292.000
30	Do.....near Fort Kearny, (six miles).....	12.000	304.000
31	Do.....beyond Fort Kearny, (two miles).....	8.000	312.000
	[Making to Fort Kearny, 310 miles.]		
	To camp beyond Fort Kearny from Fort Leavenworth.....		312.000
June 1	To camp.....	2.210	314.210
2	Do.....	9.760	323.970
3	Do.....	12.420	336.390
4	Do.....	14.640	351.030
5	Do.....	11.980	363.010
6	Do.....	10.870	373.880
7	Do.....	12.860	386.740
8	Do...on junction of north fork of Platte river....	6.210	392.950
9	Do...on a branch.....	19.080	412.038
10	Do...six miles above lower crossing, South Fork..	25.070	437.100
11	Do.....do.....do.....	15.750	452.850
12	Do.....do.....do.....	11.810	464.660
13	Do...on crossing at south fork of Platte, (upper crossing,) 3,271 feet wide.....	13.310	477.970
14	Do...beyond the crossing.....	6.650	484.620
15	Do...on north fork of Platte, through Ash hollow.	16.860	501.480
16	Do...on Platte river.....	17.750	519.230
17	Do.....do.....	20.850	540.080
18	Do...three miles east of Chimney rock.....	21.300	561.380
19	Do...near Scott's bluffs.....	23.510	584.890
20	Do...on Horse creek.....	19.280	604.170
21	Do...on north fork of the Platte.....	19.330	623.500
22	Do...one and one-half mile beyond Fort Laramie.	15.500	639.000
	[Distance from Fort Kearny to Fort Laramie, 327.500 miles.]		
25	To camp beyond Bitter Cotton-wood creek.....	21.740	660.740
26	Do...on Horseshoe creek, near Heber's spring..	14.200	674.940
27	Do...among the hills.....	19.520	694.460
28	Do...on spring branch.....	21.080	715.540
29	Do...on Deer creek.....	26.620	742.160
30	Do...on Crooked-Muddy creek.....	10.000	752.160

STATEMENT—Continued.

Date.	Camps.	Miles.	Amounts.
1849.			
July 2	To camp on crossing north fork of Platte, (Mormon ferry).....	11.750	763.910
5	Do...near a marsh and mineral spring.....	18.630	782.540
6	Do...near Willow spring, (on spring three miles beyond).....	18.850	801.390
7	Do...on Sweet Water, (two miles from Independence rock).....	15.080	816.470
8	Do...on Sweet Water.....	7.320	823.790
10	Do.....do.....	10.050	834.290
11	Do...on branch of Sweet Water.....	18.750	853.040
12	Do...on a morass, where ice was found at twelve inches in depth.....	16.050	869.540
13	Do...on Sweet Water.....	16.250	885.790
15	Do...on a stream nine miles from South pass.....	25.000	910.790
16	Do...on spring branch, nine miles beyond Sublette's or Greenwood's cut-off.....	16.250	927.040
17	Do...on Little Sandy, thirteen miles back of Sublette's or Greenwood's cut-off.....	20.750	947.790
18	Do...on Big Sandy.....	11.250	959.040
19	Do...on Green River ferry.....	23.000	982.040
21	Do...on Black's fork.....	20.500	1,002.540
22	Do...on Muddy.....	18.966	1,021.506
23	Do...on Black's fork, two miles from Fort Bridger..	15.070	1,036.576
24	Do...on Big Muddy.....	18.695	1,055.271
25	Do.....do.....	16.948	1,072.219
26	Do...on Bear river.....	25.527	1,097.746
29	Do...on spring branch.....	23.447	1,121.193
30	Do...on fort of Big Hills, two miles from Smith's station.....	17.090	1,138.283
31	Do...on Camp spring.....	18.220	1,156.503
Aug. 1	Do...on Bear river, two miles beyond Soda spring.	21.923	1,178.426
	[The California trail, by way of the Great Salt lake, four miles beyond, turns off to the left.]		
2	To camp on Port Neuf Creek.....	23.351	1,201.777
3	Do...on Rock branch.....	15.000	1,216.777
4	Do...four miles from Fort Hall.....	22.846	1,239.623
7	Do...beyond crossing of Port Neuf.....	12.729	1,252.412
8	Do...on Snake River bottom, near a spring.....	13.750	1,266.162
9	Do...on Snake river.....	14.200	1,280.362
10	Do...on Raft river.....	15.000	1,295.362
11	Do...on Snake river.....	25.440	1,320.802
12	Do.....do.....	13.817	1,334.619
13	Do...on Rock creek.....	16.116	1,350.735
14	Do...on Rock creek, where it runs in a deep cañon.	14.424	1,365.159
15	Do...on Chute or Salmon Fall creek.....	23.000	1,388.159
16	Do...on Snake river, (on the bluff).....	19.500	1,407.659
17	Do...on first crossing of Snake river.....	13.292	1,420.951
20	Do...on dry branch.....	6.816	1,427.767
21	Do...on Snake river.....	12.205	1,439.972
23	Do.....do.....	20.194	1,460.166
24	Do...on Catharine creek.....	11.715	1,471.881
25	Do...on Snake river.....	21.946	1,493.827
26	Do...on a small creek.....	6.461	1,500.288
27	Do...on Snake river.....	13.920	1,514.208
28	Do.....do.....	14.400	1,528.608
29	Do...near Fort Boisse, 2d crossing of Snake river..	14.244	1,542.862
30	Do...on Malheur river.....	15.515	1,558.367
Sept. 3	Do...on Birch creek.....	22.308	1,580.675
4	Do...on Burnt river.....	9.192	1,589.867

STATEMENT—Continued.

Date.	Camps.	Miles.	Amounts.
1849.			
Sept. 5	To camp on Burnt river.....	11.455	1,601.292
6	Do...on Spring branch of Burnt river.....	13.515	1,614.737
7	Do...in a mountain gorge.....	10.373	1,625.110
8	Do...on slough of Powder river.....	17.590	1,642.700
9	Do...on second fork of Powder river.....	13.660	1,656.360
10	Do...in Grand Ronde.....	16.500	1,672.860
11	Do...on branch of Grand Ronde river.....	7.250	1,680.110
13	Do...on Blue mountains.....	12.000	1,692.110
14	Do...at Lee's encampment, near springs.....	16.647	1,708.757
15	Do...at base of Blue mountains, on the branch of the Eumatilla.....	14.604	1,723.361
16	Do...at crossing of the Eumatilla.....	13.948	1,737.309
17	Do...on a plain, (water one-half-mile distant)....	12.710	1,750.019
18	Do...on Eumatilla.....	16.000	1,766.019
19	Do...on Columbia.....	13.523	1,779.542
20	Do...do...do.....	16.213	1,795.755
21	Do...on creek one-quarter mile from river.....	12.502	1,808.257
22	Do...on Columbia.....	14.871	1,823.128
23	Do...do...do.....	12.000	1,835.125
24	Do...on John Day's river.....	5.373	1,840.501
25	Do...on Columbia.....	17.265	1,857.766
26	Do...at the Dalles of the Columbia.....	19.646	1,877.412
29	Do...on spring branch of Dalles creek, due north-east from Mount Hood.....	6.750	1,884.162
30	Do...on first branch of Chute river.....	9.210	1,893.372
	[Here the other road, which turned off September 22, comes in.]		
Oct. 1	To camp near Indian village, on large branch of Chute river.....	15.410	1,908.782
2	Do...on brook branch of Chute river.....	12.060	1,920.842
4	Do...four or five miles from foot of Raymond's hill, on a stream. [The odometer gave 14 miles—one mile allowed for double lockages]....	15.000	.....
5	To first camp on Sandy, passing the dividing ridge between the waters of Chute and Sandy.....	8.750	1,944.592
6	To camp on second prairie; odometer displaced, and gave only 4.25 miles.....	7.000	1,951.592
7	No grass: remained here, the men cutting grass.....	.....	.....
8	To camp beyond the fourth crossing of Main Sandy; odometer gave 12.63—disallowed.....	13.750	1,965.342
9	Do...on Heru Prairie; water in springs sixty rods to right of road; odometer displaced.....	14.000	1,979.342
10	Do...at the opening in the woods; no water; odometer gave 12.69; sixth crossing of Sandy... ..	13.500	1,932.842
11	Do...at Foster's; odometer displaced again.....	4.000	1,996.842
13	To headquarters of the regiment of mounted rifles at Oregon city.....	20.000	2,016.842
	Total distance from Fort Leavenworth to Oregon City.....	.....	2,016.842

B.

WASHINGTON CITY, D. C.,
March 29, 1850.

GENERAL: I have the honor to report that, in compliance with your orders of the 5th of April, 1849, to proceed to California, and there take in charge the direction of the affairs of the quartermaster's department of the Pacific division of the army, I embarked at New York on the 17th of April, 1849, (with \$150,000 in specie under my care,) and arrived at Panama on the 2d of May. At that place I was detained twenty-four days by untoward circumstances, and re-embarked on the Pacific the 23d of May, for San Francisco.

On the voyage our steamer touched at Acapulco on the 30th May; at San Blas on the 1st June; San Diego on the 10th; Monterey on the 12th; and arrived at San Francisco on the 13th June. At the last mentioned place I reported to Major General Smith, commanding the Pacific division, and at once entered upon the duties of my office. Previous to my arrival it had been decided to abandon San Francisco as a place for a depot of supplies, and preparations were being made for the removal of the public property to Benicia, about thirty-five miles from San Francisco. On the 27th June I repaired to that place to await the arrival of Major General Smith from Sonoma, (which place he had selected as his headquarters,) with the purpose of accompanying him through the country commonly called the gold regions.

On the 4th of July the General, with his staff, Commodore Jones, Honorable T. Butler King, of Georgia, and a few other gentlemen, commenced his excursion, taking a northeasterly direction until we reached the Sacramento river at its junction with Feather river.

Crossing the ferry at that place, we passed onward until we struck the Yuba river, about forty-six miles distant. Here we had the first view of the "gold diggings," and, after having gratified our curiosity and dismissed our wagons, after two days' detention we proceeded up the Yuba eighteen miles, and there making a detour in a southeasterly direction until we intersected Bear creek, we traversed an interesting country down to the north, middle, and south forks of the American river to Sacramento City. After a few days' rest near the latter place, we pursued our march to the plains of the San Joachin country, crossing the several affluences of that river, viz: the Cosumnes, Mokelumny, Calaveras, and Stanislaus: and leaving the Taualumna a few miles on our left, we journeyed southwesterly to the San Joachin, which we reached at the ferry about eleven miles from the town of Stockton. Crossing the valley towards the junction of the Sacramento and San Joachin rivers, our route led us round the south bank of Suisun bay, to the small village of Martinez, opposite Benicia, at which place we arrived on the 6th of August, having occupied twenty-eight days in almost constant journeying, passing over a route (difficult in several places, but full of interest throughout) nearly five hundred miles in length.

I have thus summarily presented a sketch of this reconnaissance with a view to an exposition of the occupation of my time while on duty in California, as well as to show the opportunities I possessed for forming

the opinions which may be expressed in this report. Should it ever be deemed necessary to enter into a more detailed relation of the events and observations incident to this agreeable examination of the "gold regions," I may be prepared to submit it for your information; but supposing it to be incompatible with a report strictly official, and devoted singly to departmental matters, I prefer to confine myself to such subjects as affect the interests of the military service alone.

The Presidio.

The nearest military post to San Francisco is the "Presidio," so called by the Mexican authorities. It is situated near the entrance of the harbor, on the south shore, and where buildings of adobe (now much dilapidated) have been erected in a position to screen the occupants from the prevalent westerly winds.

The accommodations thus afforded to the garrison (which at present consists of one company of artillery and one of infantry) are not of a character fitting or sufficient. The design of the major general commanding the Pacific division is to hold this place with one company of artillery, for which barracks and quarters should be provided from the Atlantic section of the United States. One of the buildings sent recently from Maine to California, prepared for barracks, and another for a storehouse, should be erected at this post, and I doubt not will be so appropriated.

Supplies from the United States, destined for this post, should be landed on the beach opposite the Presidio, whence, by a little labor on the part of the garrison to improve the causeway to be found there, they can easily be carried to the proper place of deposit, and thereby save the high charges to which they would be subjected at San Francisco. Fuel for consumption by the troops is obtained from the adjacent lands reserved for public purposes. Other supplies are derived from the principal depot at Benicia.

San Francisco.

It is difficult to speak accurately of this town, so rapid has been its expansion and so ever-changing its growth under the potent influences of the great gold discoveries in California; nor can the merits of its locality be spoken of without the risk of contradiction, so various have been the reports of letter-writers for the public journals of the United States.

The *natural* obstacles, however, to its successful enlargement and permanency in a commercial view, may be pointed out as consisting in its climate, the want of prominent points for the landing of cargoes, the absence of fuel, and the lack of a plentiful supply of wholesome water. The reports alluded to above are calculated to create false impressions respecting the climate of California generally, which has been represented as equable and temperate in its character. The hilly country, holding the tributaries of the Sacramento and San Joachin, as well as the valleys through which those two rivers run, and the southern part of the country embraced in the 33d and 36th parallels of latitude, may be set down as having a most delightful climate; but to apply such commendation to the

climate in the vicinity of the coast, and especially to the bay and town of San Francisco, would be widely at variance with truth.

From May to October strong northwesterly winds prevail, commencing in the forenoon and lasting through the greater part of the succeeding night, accompanied by chilling fogs. To emigrants from the northern and eastern States, accustomed as they have been to the regular rotation of the seasons, the effect of such a climate is very trying, and nothing but the strong allurements of profitable trade would at any time render a residence at San Francisco tolerable. The harbor, *per se*, is, as it has very justly been represented, excellent in many respects, but it is not a safe one during the prevalence of the southeast gales which sometimes sweep with great violence through its whole length; and the communication from the anchorage to the shore is so much obstructed by mud flats that it is only at high tides that commodities from the shipping can be landed.

This obstacle has, in a measure, been recently obviated by the construction of imperfect and insufficient piers. An incredible waste of property has been the consequence; vessels freighted with most valuable cargoes have been deserted at their anchorage, to unload which, and deposite their contents on the open beach, at the high prices of labor, has cost more than the amount of their freight money.

The quartermaster's department, with all its resources, has not been able to escape the evils resulting from such a state of the times; and although other places, as yet, have not been found to be more favorable, in some respects, than San Francisco, there is no good reason for making that town the site of our principal depot.

Much of the land on which the town is built is held by very questionable titles; and the public reservations, made by our military governors, are liable to be disputed at any time.

To erect expensive storehouses and quarters on these lands while the difficulty of communicating with the shipping is such as has been described, would incur risks and expenses that the good of the service would not warrant; and the opportunities for so doing which existed a few months ago have since been destroyed by the act of some person, with or without sufficient authority, (about which I am not fully advised,) extending permission to certain citizens to build upon and occupy, for business purposes, some of the best points on the public reserve.

Rents are exorbitantly high—beyond a parallel in any country. Fuel cannot be obtained at retail prices for less than \$50 per cord, and men are unwilling to contract for any large supplies of it prospectively, lest the extravagant prices of labor may throw them out of all calculable profit. The wood now consumed by the officers of the army and troops at and in the vicinity of San Francisco is obtained in small quantities by our public teams from the land near the Presidio. Water is at present obtained with difficulty in most parts of the town; but as improvements in respect to this important item of man's subsistence have not kept pace with the buildings which have rapidly and almost magically sprung up to meet the pressing demands of all mercantile and commercial pursuits, it cannot be seen with what success efforts for the procurement of a plentiful supply of good water may be attended. The difficulties attending, at present,

the sending of supplies from the United States, are mostly found in the transshipment of commodities into vessels bound to Benicia. This would seem to superinduce the necessity of a resident agent at San Francisco, and (when our schooners are otherwise employed) the expense of hiring lighters or small vessels. To obviate this, Benicia should be made a port of entry, or else by making it obligatory on freighters in the United States, through their bills of lading, to deliver articles shipped at Benicia; or to specify in the bills of lading a grant of 15 or 20 days for the delivery of the stores, after notice has been given of the arrival of the vessel in port; by which means the officer at the depot may be enabled to provide a way for receiving the articles without undue expense. It is the wish and intention of Major General Smith that no officer of the army shall be stationed permanently at San Francisco.

Our vessels obtain water from the Sacramento and San Joachin rivers, when the service of the department calls them to that quarter; or, when bound seaward, they resort to Sansolita, a safe harbor about twelve miles west-northwest from San Francisco, where a supply is obtained easily and of most excellent quality.

On the north side of the bay of San Francisco, at the head of a narrow inlet called Coté Madeira, about eighteen miles from San Francisco, we have established a small circular saw-mill. When I visited it, the arrangements, as made by the agent employed, were most excellent, and promised a more abundant supply of lumber than has heretofore been received from that place. A small house, occupied as quarters for the agent and laborers, an excellent stable for the mill horses and working cattle, shed for hay, &c., had been provided in a manner creditable to the department.

Timber for the mill is very accessible, and near at hand. It is principally of the fir species commonly called "red wood," and the lumber made from it is easily worked at the bench. The supply from this source is, of course, inadequate for building purposes, and consequently it is used only for the contingent demands of the service, and for such purposes as the Oregon and coast lumber are unfit. When an abatement of prices shall take place, I would recommend an abandonment of this mill, as it cannot be profitably worked while labor and forage are to be provided by means independent of the service of our troops. In other words, it will be cheaper to buy lumber in the open market, than to conduct the business of a saw-mill through the agents of the quartermaster's department. Circular saw-mills, worked by horse-power, can only be used economically and advantageously when lumber is required at points remote from market, and when forage is obtained at a low price. During my absence in Oregon, Major Allen, assistant quartermaster, purchased a small steam engine, which was intended to supersede the use of horse-power. The utility and economy of maintaining such an establishment remain to be tested.

Benicia.

By the united judgment of Major General Smith and Commodore Jones, a place situated on the north bank of the straits of Karquinez,

called Benicia, has been selected as the most favorable locality for our military and naval depots. It is with great reluctance, therefore, that I venture to describe this position, believing, as I do, that most of its important features are objectionable, or rather, that it is lacking in many attributes which are requisite in a site designed for the purposes that this has been. Geographically it has but few defects, being in a direct line of communication with the ocean, having good anchorage, deep water, and free approaches to its shore for the unloading of the largest class of ships. Here its advantages cease, and they relate more to the interests of commerce than to the peculiar fitness of the place for a military station and a depot of supplies. Topographically, it is uninviting in the extreme, possessing an aspect neither of beauty nor of usefulness. Hills, barren of trees or any other vegetation but the wild oats, rise abruptly from the water, and, swelling onward to the interior for six miles, are utterly destitute of wood; but beyond that region the scrubby oak makes its appearance in single trees, or in small clusters, affording but a scanty supply for present consumption. Fresh water is only found in one small spring, about a mile westward from the depot. This has to be shared with the citizens of the town of Benicia.

Having in view, then, that these two great elements which invariably form the first principles in making a choice for the residence of a community are wanting at this place, I think the defects of the position are made manifest. Still, it is not easy to designate any other point which is free from similar objections, and I allude to the faults of this one to show the difficulties and consequent expenditure to be encountered in the establishment of the depots.

It has been supposed that the waters of the straits, at certain seasons of the year, may be relied on for the use of the troops; but I think this erroneous. It is only at a certain stage of the tides, combined with very high water in the Sacramento and San Joachin rivers, that the water of the straits is palatable, and then it is deemed by some to be unwholesome. A well fifty feet in depth was dug by Lieutenant Colonel Casey's company, but the water proved brackish and unsuitable for use.

The rocks forming the base of the hills seem to have been, by some convulsion of nature, thrown upwards from a horizontal position, giving a dip towards the straits, by which the water cannot be retained below the surface. Artesian wells may, by persevering probing, remedy this great evil, and it is the only reliance we now have. No expense should be spared to procure scientific as well as practical men to push, vigorously, the search for water by such means; and I must earnestly urge the subject to your notice as an enterprise upon which the welfare of the depot and its inhabitants are to depend.

Previous to my departure for Oregon I caused to be purchased an instrument for boring, and placed it under the management of Mr. Bomford, whose report will be found in the appendix. Although he has not met with full success, I feel confident that, with more perfect apparatus, water of a good quality may yet be obtained convenient to the depot. But to guard against a failure through such means, the commanding general is desirous of providing in another manner for a supply of water for the use of the post.

He proposes that, at a point adjacent to some of the larger buildings, a cistern to contain from 200,000 to 300,000 gallons of water be constructed; the bricks and cement of which it is to be formed to be brought from the United States. But as expensive as artesian wells are, they would cost far less than such an undertaking. Water remains to be provided, and the choice of means is left for your decision. Small wooden cisterns have been constructed near the storehouse already erected; but the supply from them is only adequate in the rainy season.

Wood can be obtained on Suisun bay and on the Sacramento river; but if procured by contract, under the present rate of wages for labor, it would form an item of expenditure surpassing the belief of the most credulous; and if attempted by the labor of our troops, desertion would inevitably follow, to the annihilation of the military force so employed. Coal, when once discovered—and I do not despair of its being so—may overcome this difficulty; but failing in our researches, there is no other alternative but the resource above mentioned.

Provision for sheltering the troops at this point was made during the administration of departmental affairs by Captain Folsom, to a certain extent, by contracts, directly and indirectly, for lumber, at Santa Cruz and Oregon; with the means proceeding from which Lieutenant Colonel Casey began the construction of quarters for the officers attached to his command. But the burden of the establishment of the depot, and the completion of the work of Colonel Casey's, besides the erection of barracks and other buildings for the accommodation of the troops, has devolved on Major Allen, ably assisted by Mr. Bomford, whom I appointed as superintendent of the buildings soon after his arrival in the country. In the procurement of lumber (under the contract of Captain Folsom) such of our vessels as were fit for the purpose have been busily and uninterruptedly employed; yet it was with difficulty that lumber was received at the depot in quantities large enough to make any rapid progress.

Added to this, laborers and mechanics, to be sent for at San Francisco, could only be engaged from newly arrived and needy adventurers, who remained long enough at work to accumulate a sufficient sum, by their wages, to go to the gold regions in the hope of greater gain. These had to be replaced, by a similar process, from other arrivals; thus breaking monthly, and sometimes oftener, into the arrangement and organization of an economical system of work; increasing, vexatiously, the labor of the officers in charge, and seriously retarding the operations of the service. Nevertheless, three comfortable buildings for the residence of the officers of the second infantry, 40 feet by 30 feet, have been completed. A store house 100 feet by 48 feet; temporary barracks for one company, 80 feet by 32 feet, one story high; one house two stories high, with kitchen, 44 feet by 32 feet, to be occupied by officers of the depot as quarters and offices; a carpenter's shop one story high, with an attic for carpenter's dormitory; blacksmith's shop, 30 by 20 feet, and a temporary shed stable, 63 feet by 14 feet, have been erected; so that the rainy season did not come upon all the inhabitants of the post unprovided for, though many of the mechanics and laborers have necessarily been exposed in tents through the winter.

Accompanying this report, I have the honor to submit drawings exhib-

iting plans of the buildings erected at the principal depot at Benicia. Notwithstanding the expense at which the houses at the depot have been erected, they are to be considered in the light of temporary shelters for the troops and military stores. So soon as practicable, new and permanent structures should be provided, capable of accommodating, in all respects, four full companies of troops and their officers; the commanding officer of second infantry and his staff; the officers of the depot, and the hired mechanics and laborers employed there.

The two blocks of officers' quarters recently sent from the eastern States, will be appropriated to the general of division and his staff.

The climate of Benicia is healthy, owing to the prevalence of the violent westerly winds coming in from the sea; but it partakes of the characteristics of the climate of San Francisco in its disagreeable temperature, which is so cold at night that, in the summer months, I found a covering of four blankets, while sleeping in a tent, not uncomfortable. These winds, in the dry season, are more mischievous from the clouds of dust which they raise in the vicinity of the districts of the depot, where active employment most prevails.

The resources of the country for materials for building purposes are by no means promising. Lumber, lime, and bricks are to be sought for at places remote from the depot. Through the Columbia and Willamette rivers of Oregon, and Santa Cruz on the coast of California, we are supplied with the first article. The second is rarely used except in small quantities prepared from shells on the coast; and the third are obtainable at no nearer point than San Francisco.

Lime, in very thin veins, has been discovered a few miles north of Benicia, but in such meagre quantities as would not pay for burning it. Good clay for bricks is found on the public reserve near the "Presidio," a short distance from San Francisco. Mud, from the tenacious earth of the country adjacent to the depot, has served as a tolerable substitute for better materials by converting it into adobes and mortar.

The few bricks used at Benicia have been brought into the country as ballast, as has been the coral from which lime is obtained in California and Oregon.

An examination of the country by scientific men may hereafter develop resources, in respect to lime, which will set aside the objections here alleged; and when industrial pursuits shall be brought back to their legitimate channels, other difficulties attending the establishment of a depot at Benicia may be diminished in extent, if not entirely dissipated.

Since writing the foregoing, lime has been discovered on the south side of the straits of Karquinez by Mr. Bomford, which, after the usual tests, has proved to be of good quality. It lies about ten miles from Benicia, on the Monte Diablo, about one thousand feet up the mountain.

To facilitate the landing of cargoes at the depot, the natural features of the locality must be modified in such a manner as to form a firm foundation at the water's edge for a wharf and a storehouse. This must be effected by cutting down the hills at two projecting points near the proper site, and filling out with the stone material obtained thereby to a sufficient depth of water for large vessels to float at low tide. This is feasible, and in ordinary times, with proper skill and judgment, would not be very expensive.

Whenever it shall have been prepared, an iron storehouse of large capacity should be established on the quay or landing; and a road, suitably graded for easy ascent of the hill, and all other appliances necessary to a free communication with the workshops and barracks, be provided. This accords with the views of Major General Smith, with whom I examined and conversed upon the designs relating to it.

Next in importance to the maintenance of our troops in a country like California, is to provide the means of subsistence for the working animals at our depots and posts in the supply train, and the horses used for cavalry service. It may seem strange that in such a country, capable as it is of easy culture, there should be any scarcity of forage; but in agriculture, as in every other pursuit depending upon labor for its support, the neglect consequent upon the evils of gold hunting is manifest. With a fertile soil, a genial climate for the rapid growth of vegetation, and short periods of labor, the products of the cereal crops is inadequate to the necessities of one fourth the population of the country.

The enterprise and industrious habits of the eastern people have not yet rooted out the sloth and carelessness of the old inhabitants of California. Wheat has not been extensively cultivated for the want of a market, and mills to convert it into flour. Oats and barley have met with little demand where the open arable land afforded pasturage for numerous herds of horses. When I arrived at San Francisco I found but about twelve hundred bushels of barley in the possession of the assistant quartermaster. I took immediate measures to insure a supply for the ensuing autumn and winter by sending to Valparaiso and San Blas for barley and corn.

From the former place I obtained eight thousand bushels of barley, but from San Blas, through the absence of our consul, with whom I had made arrangements, fifteen hundred bushels of corn only could be procured.

A quantity of hay was purchased in the field, about eighteen miles from Benicia, by Captain Folsom, but for the want of men and means of transportation, a small quantity only could be brought in. The wild oat, in which the whole country abounds, affords, at certain seasons, sufficient nourishment for animals which may require to be recruited in health and strength; but that kind of forage is frequently lost to us in the autumn in consequence of its destruction by fire over many miles of country in the vicinity of the depot.

The next military point to Benicia, in the order of my report, is Sonoma. It is about twenty-eight miles in a northwesterly direction from the depot, in a pleasant valley, and is accessible both by land and water. Here General Vallejo made his headquarters for the northern district of California after the revolution of the province.

The advantage of the position consists in being at the entrance of a valley which leads to passes through the mountains to the northward; in the healthfulness of its equable climate, (it being screened by the hills which surround it from the strong winds of the ocean,) and the means which it affords for the subsistence of a small cavalry force.

Availing himself of this, the commanding general has established his headquarters at this place, and also a company of the first dragoons. A house for the residence of the General has been hired at a rent of \$400

per month, and a building, once used by the soldiers under General Vallejo, has been repaired, and is now occupied as barracks for our troops. Four rooms in a building adjacent have been hired for the company officers; but comfortable and sufficient quarters cannot be procured at present among the few houses of that small village. But it is probable that the place will soon be abandoned, as Major General Smith contemplates removing his headquarters to the principal depot at Benicia, and the dragoons to be advanced further north, where they will be able to quarter themselves, and defend more effectually the settlers from the neighboring tribes of Indians, which have recently been very troublesome.

The valleys of Sonoma and Nappa, the latter about eight miles from Sonoma in the direction of Benicia, afford fine pasturage, good natural crops of hay, and even at this time a sufficient quantity of barley for the wants of our troops at Sonoma.

Sonoma creek, which rises in the coast-range of hills adjacent, and empties into the bay of San Pablo, twenty-five miles from San Francisco, is deep enough at high water to admit the approach of small vessels having light draught within a short distance of the village, by which supplies from the depot may be sent sometimes more favorably than by land; and thence may be sent to Clear lake, fifty miles to the northeast, the probable point to be occupied by mounted troops.

The posts before described comprehend the permanent military stations at present occupied by our troops in the northern portion of California. As the ensuing spring approaches, orders will doubtless be given for advancing the troops more into the interior, to prevent hostilities from the savage tribes occupying the hilly country adjacent to the Sierra Nevada, to afford relief to emigrating parties from the United States, and for the protection of the inhabitants at the gold placers.

During the past summer and autumn, four companies of the second infantry were encamped on the San Joachin and Sacramento rivers, and their tributaries. Two companies under command of Major A. S. Miller occupied a healthy and convenient spot in one of the bends of the Stanislaus, near the main crossing on the route from the Sonoranian camp to Stockton.

The other battalion, under the command of Major Kingsbury, had taken a position within a few miles of Sacramento city. Instructions, however, had been given by the commanding general to throw forward this command to a point on Bear creek, about forty miles from Sacramento city, on a road leading to the great emigrants' trail, and at a point out of the influences of spring freshets, and favorable for the acquisition of building materials, fuel, and good water.

An opportunity for carrying these instructions into effect had been afforded by the quartermaster's department, through one of our schooners, at a favorable stage of the water on the Sacramento and Feather rivers; but for some reasons unexplained to me, the season for the movement by water was permitted to elapse without an attempt to establish the post, notwithstanding the detention of the schooner for an undue period, to the inconvenience of the service at the depot. As no efforts had been made by the troops to cover themselves before the arrival of the rainy season, they have been withdrawn from the interior and posted at Monterey for

the winter. This involves the expense of another forward moyement in the ensuing spring.

It may not be inappropriate to remark that this subject is introduced in this report with the view of warding off any fears on your part, lest the resources and energies of the department have been wanting, or that, by any fault of its agents, a failure of the commanding general's views has been produced. No requisition upon the quartermaster's department has ever been made, so far as I am informed, for means of any description, to accomplish the objects in question.

In connexion with this subject, I would respectfully add a suggestion made by Major General Smith, that it would be desirable to have a number of small iron houses prepared and sent to the Pacific, to be occupied as barracks and quarters at temporary posts in the vicinity of the Sierra Nevada range. These could, from the usual manner of constructing them, be made portable, and capable of being enlarged or diminished in size, as circumstances may render it necessary. By such means, a post, the locality of which being unfavorable to the procurement of building materials, and which could not be held during the rainy seasons, would be made eligible; and it is believed that the improvements in the construction of iron houses have been such as not only to render this design feasible, but to afford also, expeditiously, comfortable habitations for our troops in the newly acquired territories, and on all the frontier portions of our country. That description of buildings, however, require the test of use in a warm country before any large expenditures should be made for their purchase. The small number already sent out to California by your order will enable us to decide upon the expediency of substituting that kind of buildings for wooden ones.

To communicate freely with the contemplated posts of the interior, as well as those on the coast and in Oregon, the vessels now in our possession must be set aside for others better adapted for river navigation and expeditious movements along the coast. For the first of these objects two centre-board schooners, of very light draft, to ply on the Sacramento and San Joachin, and in Oregon, at all seasons of the year, for carrying freight, and two small, light-draught steamboats, with high-pressure engines of great power, to be used for express service and for towing sail vessels or the transportation of troops, are much needed. One of the latter would be of invaluable service on the Columbia river as a steam-tug, or in crossing our vessels over the bar, and towing them to the depot at Fort Vancouver when wind-bound; and a schooner could be constantly employed as a lighter, or in carrying lumber, stores, &c., to the upper posts or to Puget's sound. Besides these, two low-pressure steamers of great power—one to be used exclusively for sea-service along the coast, and, if necessary, to communicate occasionally with the Sandwich Islands; and the other of lesser size, but so constructed as to be employed on river or coast service—are indispensable to the well-being and completeness of our military establishment on the Pacific. A description of these vessels will be furnished me by Major General Smith, which I shall take pleasure in submitting so soon as it may be received. It is from his views as expressed to me, that I derive the information herein expressed in regard to the wants of the service on the frontier.

The transfer of the "Massachusetts" and "Edith" from the quartermaster's department has, from the many consequent evils proceeding from the act, taught us the manifest impolicy of relying upon any resource foreign to the command and authority of the military branch of our service.

With the small number of troops in California and Oregon, no expeditions requiring quick movement can be perfected without greater means of transportation than we now possess in that quarter. The portion of our small army in the Atlantic States is made effective by the facilities which abound there for the congregation of its various fragments, scattered over a vast extent of territory. There, too, the co-operation of the volunteers and militia of the country can at all times be depended upon in times of emergency; but in the thinly settled region on the Pacific, where men can hardly be expected to forego the golden opportunities which exist for the dangers and privations incident to a soldier's life, we must depend upon the regular troops for our defence. To be assured of their efficiency, therefore, we must have all the necessary means with our own power, and not cast ourselves upon the mercy, judgment, or caprice of naval officers for assistance; and it is for this reason I would recommend that not only the steam vessels we have lost be replaced by better ones, but that the number be increased to meet all the wants of the service, so as to render it efficient and useful to the public.

It may be asked, why the necessity of so many vessels for the service of so small a portion of the army as is now stationed on the Pacific? My answer to which would be, that the facilities of commerce through the agency of the transportation companies have no existence there; that, although there is a very large number of vessels lying in the harbor of San Francisco, they exist only as floating monuments of the deplorable condition of the times, incapable of service for want of sailors to navigate them; or if, peradventure, brought into use, they are not of the class adapted to the navigation of the bays and rivers through which we must send our supplies.

Our military operations on the Pacific must at present, from the nature of circumstances, be carried on as in times of war, depending on our own resources for the want of the assistance to be derived from mercantile establishments, as conducted on the Atlantic.

Another benefit may be conferred upon the inhabitants of California and Oregon (especially the latter) by the free and open communication to be established through the agency of steam navigation in the conveyance of the mails. The postal arrangements between these two sections have been culpably neglected by the contractors and post office agents. Although it is required, by existing contracts, that the mail shall be carried once a month between San Francisco and Oregon, it has been frequently neglected, and I am informed by the chief justice of Oregon that one important mail has been lost, and nearly all have been intrusted to irresponsible persons, travelling by the uncertain and often tardy conveyance of sail-vessels. This is a matter about which the people of Oregon, as well as the officers of the army, loudly and very justly complain.

So long as the prices of commodities, especially forage and lumber, remain at the present high rates in the vicinity of the depot, resort

must be had to foreign markets, and hence our means of transportation should be increased. If the foregoing recommendations be acquiesced in, and the necessary vessels purchased, provisions will have been made for that branch of our wants. But means of a subordinate character are also required for the navigation of the inlets and small branches of rivers, and for the local duties near and at the depots in California and Oregon. For crossing the mountain streams, small India rubber boats, to accompany detachments, (having pack-mules for the transportation of their baggage and provisions) will be very useful, and I recommend that a small number be sent out with the steamers. On the tour of examination through the gold regions, made last autumn by Major General Smith and staff, the cost of ferrying our party over a narrow but deep branch of the American river, by means of one of these boats, was as great as the original cost of it in New York.

Another needful adjunct in land transportation is General Stanton's wagon float. In some parts of the country it may be used at all seasons, but in this it will always be of great service with the supply train in the interior. There is no part of our domain where it can be so often applied beneficially as in the country west of the Rocky mountains. Land transportation, also, to be effective, will necessarily involve heavy expenditure of money while operations are to be carried on in the country contiguous to the mountains. Wagon teams must be arranged in conjunction with our river transports; and, as the uncertain supplies of grass cannot be depended on as proper food for working animals, grain from the main depot will become the only source for the maintenance of our cavalry horses, the mules of the supply trains, and at the subordinate depots.

Horses, though abundant in the wild state, are not fit for our purposes generally. From the manner in which they are broken to the saddle by the Californians, we cannot make them suitable for dragoon service, and very few have been trained for working in harness.

What are commonly called "American horses" are such as have been brought into the country in the course of emigration from some of the western States, and, from the privations and fatigue of such a journey, are lacking in the requisite qualities to perform further efficient services, and very few of them can be obtained. Working oxen, broke to the "American yoke," have been introduced in like manner, but they are rarely obtainable in numbers large enough to form of them a competent train. They are exceedingly valuable for service in the plains, or where forage is scanty.

Mules, like everything else, command a high price, and are obtained, chiefly, in the manner described above, and with the same objection attached to them. From the Mexican State of Sonora large supplies will, doubtlessly, be carried into California, and sold at reasonable prices when the people of that country discover that they will no longer be tolerated at the mines as gold diggers, which occupation has had its influence over them as well as with our own citizens.

In some of my reports, made while stationed in California, I had occasion to call your attention to the fiscal concerns of the quartermaster's department under my charge. The large sums carried to that country by Major Fitzgerald and myself, were speedily expended. Indeed, I found

that on my arrival there the debts contracted by my predecessors were so large as to leave no other resort for means to carry on the current duties of the department than the "civil fund" of California, so called, which had been raised, in part, by military contributions during the Mexican war, and otherwise by the collection of duties at the custom-house.

This fund, being under the control of the governor of the Territory, was placed for safekeeping in the custody of some one of the disbursing officers of the quartermaster's department. As it had accumulated to a cumbrous amount, and, from the character of the buildings at San Francisco, no good place of security could be found in which to deposit it, it was deemed expedient and safe to lend such sums as were needful for the urgent wants of the army, to be replaced at a subsequent and convenient period by remittances from the United States. But for this resource the operations of the quartermaster's department would have been much impaired if not entirely stopped for want of funds. And such had been the extravagant wants of the department, by the unforeseen increase of the demands upon it—extending beyond any, even the wildest conjectural estimates that could have been formed—that the drafts upon this fund had at one time become alarming, and I was apprehensive that the sums so expended might exceed the appropriations for that division of the army. Being assured, however, by the general commanding, that any excess of expenditures would be provided for by future appropriations by Congress, the "civil fund" continued to be our reliance. In relation to this subject I have written extensively enough before to render further remarks unnecessary; yet, as it may not be well understood how the civil fund has been created, I will remark that in its accumulation it may be classed under three distinct heads, viz:

1st. The money received from military contributions during the war with Mexico.

2d. The amount derived from the collection of duties on imports under the administration of Colonel Mason, without the authority of law, and subsequent to the treaty of peace with Mexico, and prior to the arrival of Major General Smith; and

3d. The amount which accrued from the collection of customs after the 1st of March, 1849, under the circular letter of General Smith, which made the duties collected subject to the future action of Congress—the sums being voluntarily deposited by the importers in the hands of the agents of the government.

All draughts upon these deposits by the disbursing officers of the army have been considered as loans, to be replaced after the action of Congress shall have been had in relation to the fund.

The necessity for using the civil fund grew out of the sudden influx of troops and supplies, the payment of large contracts for lumber and other building materials, the establishment of new posts, the purchase of horses, mules, &c., the hire of laborers, mechanics, and teamsters, but especially the enormous price of wages consequent upon the foregoing. These had not been anticipated seasonably enough to be prepared for them.

The original cause of the singular condition of affairs in California, in respect to high prices for the ordinary necessities of life, may be traced to the diversion of labor from its legitimate channels to be absorbed in a

single pursuit, (gold digging,) from which no social benefits are to be derived, inasmuch as there is no community of interests in a multitude of adventurers, each acting for himself, in a search requiring manual efforts alone for its success. Hence, the mechanic and day-laborer must receive as wages an equivalent to the daily gains to be acquired at the gold placers. And this will be applicable to every variety of operatives in the mechanical arts, trades, agriculture, and commerce.

In *our* expenditures we have no greater return for our money than we received in times before the discovery of gold. We have no set-off nor equivalent for the high prices we have been paying during the past year; and I can perceive no way open to escape from the evil but to withdraw the troops from the Pacific country. As this, however, is hardly to be thought of, we should study to ameliorate the severity of the times by sending from the United States all the articles needed for the use of the army, which may require manual labor for their fabrication or construction, previously prepared in a manner to avoid expense in their adaptation to the purposes designed after they shall have been landed in California. Especially is this to be recommended for barracks and quarters, should it be determined to erect them in that country, in lieu of the temporary buildings which have recently been constructed.

An expedition was fitted out in the early part of September last, by orders of Major General Smith, for the relief of a large number of emigrants from the United States, who had been reported to be in a very deplorably suffering state from the want of food and means of transportation.

Subsistence stores, beef cattle, wagons, &c., were promptly provided by Major Rucker, assistant quartermaster, aided by able assistants, and carried to the mountains in season to succor many who would have perished but for this generous and humane undertaking.

To quote the language of Major Rucker in his report to Major General Smith, "a more pitiable sight than those wearied, diseased, and starving emigrants, I had never before beheld. There were cripples from scurvy and other diseases, women prostrated by weakness, and children who could not move a limb. In advance of wagons were men, mounted on mules, who had to be lifted on and off their animals, so entirely disabled had they become from the effects of scurvy. No one could view this scene of helplessness without commending the foresight that dictated the relief, without which some of the recipients would have inevitably perished in the snows. It would have been difficult for the most healthy to have worked their way in through the storm without assistance, much less those who had been deprived of the use of their limbs."

This expedition cost about \$100,000, after selling off the property purchased for it; and the money was drawn from the "civil fund."

Another expedition, under the late Captain Warner, topographical engineer, for the exploration of the Sierra Nevada, was attended by an expense of \$50,000, (derived from the same fund also,) and the loss of that most valuable officer's life, at a moment when he had accomplished, most most successfully, the object of his search.

From the views of Major General Smith, as expressed to me, I am enabled to state that, when the country shall have become settled by a fixed population, devoted to the usual employments of agriculture and trade, by

which the most favorable localities will have been discovered and occupied, permanent posts for their protection will be established; but, in the mean time, two interior depots should be provided for—one to be situated at a favorable point on the emigrants' trail leading into California from the Oregon route, and the other in the southern part of the Territory, where it can be most useful to the bodies of troops operating for the defence of the new settlements.

At present no well-defined plans for military occupation can be formed. Projects for towns and cities are as various and undetermined as are the points on the bays and rivers which, in the dry seasons, are above high-water mark. Time and the good sense of our citizens will soon cause a development of the most eligible localities, and the ascertainment of military positions must immediately follow. Nevertheless, for the two depots above mentioned, two officers of the department will be required in California in addition to the number already there; and I respectfully recommend that they be ordered to that country accordingly. At present there are but three assistant quartermasters on duty in California. That number is too small for the growing necessities of the service; and the want of an officer for incidental and itinerary duties, to take the place of less experienced agents, has been felt in more than one instance. There should be at least five assistant quartermasters and a quartermaster in California, with one of the higher grades of field officers as chief director, to reside at division headquarters—the quartermaster to be stationed at the principal depot; one assistant quartermaster to aid him; one at Monterey; one at each of the depots in the interior; and one to be employed for general purposes, such as purchasing forage in South America, superintending the steamers and sail vessels in their arrangement, repairs, &c. To carry the last-named object into complete effect, and to insure any degree of regularity in the government of our marine service, a code of regulations, having the authority of the Quartermaster General for their support, should be prepared and issued without delay. This branch of our service has been at all times a very important one, and yet there is no uniform system for its government. It can, if properly conducted, be productive of incalculable benefit to the military service, and not unfrequently to the community at large; but if it be permitted to run on without any settled principles for its guidance, or else resting alone on the varying judgment of individual officers of the department, misrule, speculation, private traffic, and a waste of the public property, must inevitably follow. The rigorous control and vigilant scrutiny of one officer may be neutralized by the indulgent disposition or reckless indifference of his successor, or perhaps be overruled by some captious or jealous superior. That the management of our vessels has been conducted loosely, and a strict accountability of public property on the part of the captains has been wanting, there is no doubt; and I most urgently request that the regulations above suggested be published at once. I have the approbation of Major General Smith of the views I have expressed on this subject.

In the event of appropriations being made for the building of the steamers, according to the design of the major general commanding on the Pacific, he deems it worthy of consideration whether coal could not be profitably procured from New South Wales—placing a portion of it in

depot at the Sandwich Islands, and using our schooners for its removal to California. The only reason why the Sandwich Islands are here recommended as a depot for coal is, that the high freights charged for a voyage to San Francisco will be avoided. In fact, from the desertion of the crews of vessels arriving at that port, it is questionable if any contract could be fulfilled; while owners of vessels could readily engage for the former place, as they could take in a return cargo of guano or freight from Manilla, &c.

A similar depot could also be established somewhere in Oregon, (on Puget's sound, or near the mouth of the Columbia)—the coal to be obtained of the Hudson's Bay Company, from their mine on Vancouver's island; and I deem this, after all, the most available point for the procurement of coal. The price asked by the company is \$12 per ton, delivered at the mines, which lie on the northeast side of Vancouver's island. Coal yet may be discovered on our side of the straits of Fuca; but thus far all researches for that mineral have proved fruitless, although it has been supposed that it exists on the Columbia, the Cowlitz, and some of the more southern streams; but, from the specimens in my possession, which were obtained from those sections of the country, and which will be submitted to you, I feel confident that nothing but lignite is found there.

When the shipment of the requisite supplies to California shall have been determined upon, I would respectfully recommend that a large quantity of kiln-dried barley and oats be included among the stores. Forage will be much needed during the next two years both in California and Oregon; and, as a measure of economy, I think its transportation from this country will not prove amiss.

In order to keep the quartermaster's department supplied with funds, I would suggest the expediency of some arrangement by which the risk, expense, and delay attendant upon remittances from the Atlantic side may be avoided. The prospective wants of the military establishment in California cannot be seasonably and accurately anticipated, so as to enable the officers of the department to render reliable estimates. If authority could be delegated to the commanding general or the senior quartermaster on the Pacific to draw upon the collector at San Francisco, at certain periods, for specific sums, to meet approximate estimates for current expenses, it would benefit the service. Requirements for *extraordinary* disbursements might then undergo the examination of the authorities at Washington for approval, and money for such purposes only would be exposed to the dangers of transportation.

For a more detailed account of the operations at the Benicia depot, I would call your attention to the annexed report of Major Allen, which was received on the eve of my departure, and after most of the foregoing remarks had been prepared. It will be perceived that that excellent officer has had many difficulties in his way, but, through the exercise of his accustomed diligence and ability, he has creditably overcome them all. With his report will be found a statement of the "civil fund," in which are exhibited the sums appropriated to military purposes, and especially the amount due to the fund by the quartermaster's department on the 31st December, 1849, viz: \$555,000. Most of the balance remaining on

hand (\$100,000) has been similarly applied for expenditures during the month of January, which will swell the amount of our indebtedness to about \$650,000. Besides the amount above mentioned, Major Fitzgerald had expended \$70,000 prior to the assumption of the responsibility of the fund by Major Allen.

Whether Major Allen, as treasurer, has introduced that sum into the amount expended by the quartermaster's department, I am not advised; but I think it probable it has been omitted. A summary statement of the expenditure of the above amount accompanies Major Allen's report. The department in California is destitute of funds, and much remains to be done there and in Oregon, which will involve very large expenditures; and I cannot too urgently represent the necessity of liberal appropriations for the service of that country, the estimates for which should bear the ratio of ten to one, compared with those for similar objects in the Atlantic States.

Remittances should be timely and sufficient; otherwise, little can be done for the comfort of a portion of the army now the most exposed, and the least able to provide the common necessities of life, with the narrow and utterly inadequate means afforded by their government.

The post at San Diego should be supplied at once with all the requisite buildings usually pertaining to a military post. The garrison at that place will probably consist of two companies of infantry, for which soldiers' barracks, officers' quarters, guard-house, hospital, store-house, and appendages, should be provided in the Atlantic States. At present the troops are quartered in miserable shanties on the beach north of the harbor. On my way homeward I had an opportunity of observing the needy condition of the troops, and conversing with Major Hintzelman respecting the wants of his command. I hope that the next shipment of buildings and other supplies may include the necessary quarters for the troops at San Diego.

I regret exceedingly that I had no opportunity of visiting the southern region of California. Our protracted absence in Oregon, and the setting in of the rainy season, forbade the attempt to do so, while the necessity existed of reporting seasonably to you at this place.

Oregon.

On the 29th of August I embarked on one of the schooners belonging to the quartermaster's department, with the design of examining such parts of Oregon Territory as should be deemed interesting for military purposes—Major General Smith (who was also a passenger, and with whom I had the honor of being associated, as on a similar enterprise in California) purposing that our route homeward should be through a district of country traversed heretofore only by a few adventurers, trappers, and gold hunters. But, for reasons to be assigned hereafter, this plan was unhappily thwarted.

After a somewhat tedious and stormy voyage of twenty days, having run as far westward as 131° of longitude, we made the land a few miles north of Cape Disappointment. We were detained by adverse winds and foggy weather three days off the bar of the Columbia river; but, on the

22d of September, we were enabled to run as far as the channel between the north and south sands, when we became suddenly enveloped in so dense a fog as to render it imminently dangerous to go further. Our only safety was in our anchors, as we were surrounded by breakers, and to them we resorted; but, the strong current and westerly winds setting in at night, at about 1 o'clock a. m. on the 23d, our best chain cable parted, and we were drifted close upon the north sands before the vessel could be checked by the remaining anchor. The next morning we ran in behind the cape, and came to anchor in Baker's bay—a harbor resorted to invariably by vessels bound inward or seaward.

I have been more minute in this account of the passage of the Columbia bar, that your attention may be drawn to the difficult entrance of that river—an obstacle which is destined to seriously affect the interests of the best portions of the Territory of Oregon.

On the 24th, in the afternoon, we arrived at Astoria; and, having examined the country in the vicinity of that place, we again set sail on the 26th, and, with favoring breezes, we were enabled to reach Fort Vancouver on the morning of the 28th September. At this place, as Major General Smith was about to step on shore from the boat of the schooner, he received an injury on his leg, which became so much aggravated as to confine him to his room until the 6th of November. Meanwhile, I examined the country in the vicinity of Fort Vancouver.

On the 20th and 21st of November, we ascended the Columbia to the Cascades, and returned to Fort Vancouver on the 22d.

Arrangements having been made for our return to California, on the 27th of November we embarked in batteaus, ran down the Columbia to the mouth of the Cowlitz, ascended that river to within $2\frac{1}{2}$ miles of the Cowlitz farm, at which place we took horses for Nesqually. We reached Puget's sound on the 4th of December, where we found our schooner, which had previously been sent round from the Columbia to await our arrival.

On the 9th of December we again embarked, and, after a tedious passage, arrived at San Francisco on the 27th, and at Benicia depot on the 29th.

It may not be inappropriate to remark, at this point, that the passage from San Francisco to the Columbia river can seldom exceed three or four days by steam-vessels, which will rarely be prevented crossing the dangerous bar of that river.

My remarks in the foregoing pages with respect to the sources of supply of forage, means of transportation, high prices of labor, and articles of subsistence, as they are found in California, will apply with equal force to the condition of things in Oregon. The unfavorable influences of the gold placers have been felt there, as well as in other parts of the world, to the injury of the interests of society and the settlement of the country.

Having received no report from Captain Ingalls—the only officer of the quartermaster's department in Oregon—I was unprepared to find that there existed so many obstacles to the furtherance of operations necessary to the establishment of our troops in quarters as were encountered by that officer and the troops of Major Hatheway's command. Laborers

and mechanics from the citizens of the country could not be found. Lumber, in that region of illimitable pine forests, commanded prices that had never been imagined before; and the only working animals to be had were the small Indian horses, unused to harness, and a very few oxen.

Notwithstanding these difficulties, by the timely arrival of the ship Walpole from New York, which had been freighted with all the needful quartermaster's stores for building purposes, (lumber, bricks, and lime excepted,) with the efforts of two companies of artillery under Major Hatheway, comfortable quarters had been provided and occupied previous to my arrival at Fort Vancouver.

But I must not neglect to add that, without the assistance which had been received from the resources of the Hudson's Bay Company, the difficulties met with would have been almost insurmountable. That well-organized and admirably-conducted corporation has, in all times of necessity, afforded, through its gentlemanly, hospitable, and efficient agents, every means of relief in their possession, not only to the officers of the army, but especially to the newly arrived and suffering emigrants.

The administration of their affairs at Fort Vancouver is at present confined to the chief factor Peter Skeen Ogden, to whose kind disposition, energetic rule, and helping hand, much of the success which has attended the efforts of Captain Ingalls to place our troops in comfortable winter quarters is attributable. Through his aid and counsel, Indian labor has, in a measure, been made available for many of our purposes. Horses, sail-vessels, batteaus, &c., have been freely placed at our disposal at a moderate compensation, when, not unfrequently, it has been inconvenient to the company to do so. This meagre award of commendation and acknowledgment of favors conferred I cannot suppress, even in a report of the character which this is; and I only regret that I have no better opportunity of making more extensively known the manifold acts of usefulness and hospitality which have respectively been conferred upon the quartermaster's department and the officers of the army by the representatives of the Hudson's Bay Company in Oregon.

Of the buildings occupied by the troops, two are the property of the Hudson's Bay Company, which, with some alterations and repair, were converted into barracks for one company, and a store for subsistence supplies.

The buildings constructed consist of one house of eleven rooms, occupied as officers' quarters, and a mess-room, a kitchen for officers, a bakery, and a soldiers' mess-room and kitchen—all built of logs, and of the most temporary character.

A few small tenements pertaining to Fort Vancouver are hired for offices and for the occupation of hired men attached to the quartermaster's department.

The arrival of the rifle regiment (in September and October) induced the necessity of hiring quarters for it before the rainy season set in; and these were only to be procured in number and extent sufficient at Oregon City, on the Willamette river, about twenty miles from Fort Vancouver, where they were readily found by Captain Ingalls, deserted by their former occupants, who had gone to the mines of California. A list of the number of houses so rented will be found annexed to this report.

On the expiration of the rainy season, measures must be taken to provide quarters for that regiment, and contracts for lumber and other materials should be made for that purpose at an early period in the spring, unless Fort Vancouver and its appendages shall pass into our possession in the mean time; and, even then, the number of buildings thus obtained of a permanent description will be insufficient for the wants of the service. Those wants cannot be definitely ascertained or reported until the designs of the War Department shall be more fully developed and disclosed.

I have already written upon the advantages to be derived from the acquisition of the Hudson's Bay Company's possessions lying within our boundaries; but it is peculiarly desirable that we should become the owners of their property at Fort Vancouver, for the many eminent advantages it possesses, besides the convenience of the buildings and fine improvements to be found thereon.

As it is the central point of the business transactions of the company west of the Rocky mountains, so is it destined to become the point from which all our supplies to the several military posts are to radiate. It is the only place where a mounted regiment can be sustained advantageously, affording as it does fair pasture-ranges and open fields for cavalry evolutions. It is accessible for supplies by water in three directions, viz: through the Columbia, the Willamette, and Cowlitz rivers—all communicating with the most fertile portions of Oregon, from which, when the absentee population and new-comers shall have developed the capability of the soil, the supplies of forage and other vegetable products are to be derived.

On the local advantages of Fort Vancouver, the description of the property, buildings, &c., I beg leave to refer you to the "Narrative of the Exploring Expedition by Captain Wilkes, United States navy," the minuteness of which cannot be imitated in the narrow limits of this report.

In regard to the other possessions of the Hudson's Bay Company, I have heretofore said but little—perhaps not sufficient. I will therefore briefly advert particularly to one or two points not embraced in any previous remarks of mine.

Forts Colville, Okanaghan, and Wallawalla have been so elaborately described by Captain Wilkes in his "Narrative," before alluded to, that, had I been permitted to extend my journey for their examination, I should probably deem it unnecessary to add a single word to his, especially as I view all and each of those places as important only for trading posts with the Indian tribes adjacent to them, and as affording no prominent advantages in a military point of view.

Fort Wallawalla, being about fifteen miles distant from the old emigrant trail from the United States, may, at some future day, when the emigration tends towards the northern section of Oregon, *via* the Cascade range, north of Mount Ranier, be made useful as a depot for provisions, from which relief may be afforded to suffering emigrants. But it lies at too great a distance from the habitable country, requiring protection through the agency of a military force, and is too difficult of communication for the requisite supply of subsistence stores, ever to be profitably

maintained for a longer period than the season of emigration. At present, the line of emigration, being towards the Willamette valley, diverges southwardly before it reaches the influences to be derived from Wallawalla; and therefore the advantages, if any there be, of that position, are remotely prospective.

The most prominent point on the Columbia, north of Fort Vancouver, for military occupation, is the Dalles. It is equidistant (computing by the time occupied in travelling) from Fort Wallawalla, Fort Vancouver, and Oregon City, or the populous part of the Willamette valley.

Hitherto it has been occupied as a missionary station, and is, from its accessibility, salubrity of climate, and eligible position, destined to become a military station, and perhaps to supersede Fort Hall. The soil in its immediate neighborhood may, by careful cultivation, be made to yield all the esculent vegetables, wheat, oats, &c., for the use of a garrison of two companies. The pasturage is said to be good and plentiful; springs, and small streams, and good timber, are found in the table lands adjacent; and the salmon fishery is the best on the river. The lateness of the season was, probably, the only obstacle to its being occupied by a portion of the rifle regiment.

The operations of the department in the Columbia river district of Oregon, since the arrival of troops there, are given in a detailed report of Captain Ingalls, which is hereto annexed.

The price of oats had advanced to two dollars per bushel previous to my departure, and the hay obtained for winter use was procured by men employed to cut it in some of the low grounds on the south side of the Columbia.

The shipment of stores to the "mouth of the Columbia" or to Astoria, as in the case of the ship Walpole, adverted to by Captain Ingalls, has been productive of much expense and inconvenience, without any perceptible reason for so doing. The Columbia is navigable for any class of vessels to Fort Vancouver, where there is to be found twenty-two feet of water in the channel at dry seasons of the year. The only obstacle to the navigation of the river, under good pilotage, is at Tongue Point, a few miles above Astoria; and this, at high tides, is not of difficult passage. Astoria contains about fourteen small houses, is situated on a narrow strip of land at the base of a high hill, and possesses no facilities for the storage of commodities, and never should have been selected as a terminus of the supplies from the United States destined for Oregon. Many uninhabited parts of the river possess far greater advantages for such a purpose.

The cost of river pilotage is too insignificant to deter owners from sending their vessels to Fort Vancouver; and, as this is the only objection to such a course that I am able to discover, I have to urge, most respectfully, that in all future contracts for shipments of supplies to Oregon, the vessels destined for the Columbia be required to land their cargoes at the main depot at Fort Vancouver, especially as a pilot in the employment of the department resides at the mouth of the river; or, if the supplies be destined for Puget's sound or the Straits of Fuca, that they be sent there direct, as the navigation in that quarter is free from any obstruction whatever.

The post on Puget's sound is near its head, about a mile and a half

from the mouth of a small river called Steilicoom, and about seven miles from Fort Nesqually, one of the posts of the Hudson's Bay Company. It possesses no peculiar advantages of position, and will probably be abandoned in the course of a few months. Some point lower down on the straits, perhaps near New Dungeness roads, nearly opposite Victoria, on Vancouver's island, will be selected.

Most of the country in this region remains to be occupied. A few settlers have opened small farms, which have yet produced but a small quantity of grain, and, in consequence, the acting assistant quartermaster at Steilicoom will be dependent on the principal depot at Benicia for a supply. The high prices of oats at present will induce the few farmers near Nesqually to devote their grounds to that kind of grain next year, and it is to be hoped that enough will be raised to meet our moderate wants in that section.

Fine timber of many varieties of pine is found on all the navigable streams of Oregon; but none of it affords such good lumber as the white pine of the eastern, or the yellow pine of the southern States.

Between the Cowlitz river and Puget's sound—a distance of about sixty miles—the country is an alternation of plains (some of which are only fit for sheep-pastures) and belts of timber, which are frequently intersected by streams subject to overflow, and opposing the transit of supplies between our military posts on the Columbia and Puget's sound. Yet some of these plains in the vicinity of the Cowlitz farm are well adapted for tillage. The whole face of the country, however, may fairly be set down as being fertile, bearing excellent timber, and possessing good water-power.

The climate is genial, and on the northern extremity are many eligible sites for seaports, easy of communication with several inviting and advantageous markets.

Good clay for bricks is found near the Cowlitz farm, and abandoned brick-kilns, with very good bricks lying near them, were observed on my route.

The current of the Cowlitz is very rapid, and in high water dangerous. The difficulties of its navigation by batteaus is always, however, overcome by the skill and perseverance of the Indians of the country. Yet the transportation of supplies cannot be made safely over that route. It is said that a favorable passage overland may yet be found from Puget's sound to the Columbia, and I presume that, in the course of the ensuing summer, the country will be examined with that design.

The Willamette is navigable by small vessels as high as the Klackamus river, which enters into it a few miles below Oregon City. But square-rigged vessels generally anchor opposite Portland, (sixteen miles from the Columbia,) where they receive their cargoes of lumber, which have been rafted from the mills above.

The foot of the rapids, below the Cascades, on the Columbia, may, at some future day, become an important point for a small depot.

Our examinations resulted in the discovery of a favorable point for that purpose, where good water-power was convenient, as well as fine timber for lumber and fuel.

One of the specimens of coal to which I have called your attention in

one of the preceding pages of this report was found by Lieutenant Talbot, of Major Hatheway's command, on the Seletz river, one hundred and twenty miles south of Fort Vancouver. Its position was about thirty feet below the surface of the ground, at the verge of the river, appearing in small quantities—the vein being only four inches in thickness, and dipping at a considerable angle from the river. The exploration of Lieutenant Talbot extended as far as the Alsea river, which empties into the bay of the same name on the coast. That bay is reported to be an excellent harbor, having a sufficient depth of water for large vessels, extending some distance up the river.

It is again to be regretted that we had not a steam-vessel at our command, by which we could have examined the coast south of the Columbia. That a harbor, such as Alsea bay is said to be, should exist without more information respecting it, is an evidence that much of exploration remains to be made, and that a fine field is open for the investigation of the scientific engineer, as well as the enterprising merchant and agriculturist. The difficulty of navigating the coast in sail-vessels prevented many excellent objects premeditated by us in our excursion, which, with the aid of steamers, might have easily been accomplished, and perhaps with many valuable results.

Lieutenant Tallmadge's brief report will point out to you whence the supplies of forage are derived, as well as the number of buildings constructed by Captain Hill's command.

These last are of the most frail character, but sufficiently secure to shelter the troops comfortably through the winter.

Whenever a site for a permanent post shall have been selected, new barracks and quarters must be provided.

Two more officers of the department are required in Oregon—one to be placed in charge of the depot at Fort Vancouver, as principal quartermaster of the 11th military district; and the other on Puget's sound.

I subjoin to this an estimate of the buildings and quartermaster's stores required for the service of the Pacific division of the army.

It is difficult to anticipate the wants of our department, multifarious as they are, and embracing almost every article called for in a community devoted to every branch of trade and the arts. Large as my estimate is, it cannot fail to be insufficient in respect to many articles. It should be remembered that some descriptions of commodities cost 1,000 per cent. more in California than in the United States, and that nothing should be omitted that can possibly be thought of. I therefore respectfully request your assistance in rectifying the omissions and errors committed in the estimate attached to this report.

All of which I have the honor to submit.

I am, sir, with great respect, your obedient servant,

D. H. VINTON,
Major and Quartermaster.

Major General T. S. JESUP,
Quartermaster General U. S. A., Washington, D. C.

Estimate of buildings required for the troops, &c., composing the Pacific division, United States army, at the several military posts in California and Oregon.

SAN DIEGO.

- 2 barracks, one company each, of infantry.
- 2 blocks for company officers' quarters.
- 1 barrack for one company of dragoons.
- 1 block for dragoon company officers' quarters.
- 1 block for commanding officer's quarters—field officer's allowance.
- 1 guard-house.
- 1 hospital.

PRESIDIO, NEAR SAN FRANCISCO.

- One company of artillery.
- 1 block for officers' quarters.

BENICIA.

- Two companies of infantry.
- 1 barrack for one company.
- 2 blocks, one story, quarters for hired men in quartermaster's department.
- 4 cottage-houses, four rooms each, one story high, quarters for officers of the general staff.

SAN JOACHIN STATION, TULARE LAKE.

- Two companies of infantry.
- Iron houses for barracks and quarters, if timber cannot be found in that quarter.

SACRAMENTO, POST ON BEAR CREEK.

- Two companies of infantry.
- To cover themselves by their own labor, with materials to be found in their vicinity.

POST ON CLEAR LAKE, SEVENTY MILES NORTH OF SONOMA.

- Two companies of infantry and one of dragoons.
- To cover themselves.

Remarks.—The iron houses already shipped from the United States are intended to be exposed to a trial of their fitness before others of that material be introduced into the service.

At Benicia, the barracks, two houses for officers' quarters, and a guard-house, now on their way to California, are to be erected on the sites selected by Major General Smith.

The above-mentioned posts are all that are intended to be established in California, unless the army be increased during the present session of Congress; and any other estimate for objects similar to the above, proceeding from any other quarter of the Pacific division, I am authorized to say, by the commanding general, does not meet with his approbation.

Estimate of quartermaster's stores required for the service of the Pacific division, United States army, for the year commencing July 1, 1850, by Major D. H. Vinton, principal quartermaster, headquarters of Major General Persifer F. Smith, commanding.

- 1 sea steamer.
- 1 river steamer of low pressure, to be used outside, if necessary.
- 1 river steamer for Oregon.
- 2 schooners, centre board.
 - Canvass, duck, various descriptions, for vessels.
 - Cordage, various descriptions, for vessels.
 - Naval stores, various descriptions, for vessels.
 - Copper for three schooners.
- 6 india-rubber boats.
- 10 one-horse carts.
- 15 one-horse cart harness.
- 12 wagon-floats.
- 20 two-horse wagons, light.
- 200 pack-saddles, France's modified.
- 10 ambulances, and harness for two horses.
- 1,000 iron bedsteads, single.
 - Brick and water cement for cisterns $50 \times 40 \times 15$ feet.
- 50 wall tents and flies, with poles and pins.
- 150 common tents, with poles and pins.
- 6 whale boats, with oars.
- 4 anchors, two large and two medium.
- 10 grindstones.
- 4 fire-engines; 30 feet of hose for two; two engines for supply.
- 200 Grimley's riding saddles and bridles, for issue.
- 2 apparatuses for boring artesian wells.
- 100 pickaxes.
- 50 crowbars.
- 1,000 blasting tubes.
- 3 patent windlasses, for schooners.
- 75 close stoves, various sizes; (absence of brick and lime render these necessary.)
- 50 cooking-stoves, for officers.
- 20 cooking-stoves, for companies.
- Stove-pipe for the above.
- 10 hand carts.
- 100 wheelbarrows.
- 2 steam saw-mills, planing-machine attached; one for California and one for Oregon.

- 200 saw-files, for saw-mills, assorted.
- 50 common andirons.
- 50 common shovels and tongs.

Stationery.

- 150 reams letter paper.
- 50 reams cap paper.
- 20 reams envelope paper.
- 20 reams folio post paper.
- 100 blank books, eight quires.
- 100 blank books, six quires.
- 50 blank books, four quires.
- 200 blank books, memorandum.
- 6,000 quills.
- 50 dozen steel pens.
- 15 pounds wafers.
- 20 pounds sealing wax.
- 50 dozen pieces of tape.
- 50 dozen ink-powder.
- 300 bottles of black ink.
- 20 dozen lead pencils.
- 100 inkstands.
- 20 copies quartermaster's regulations.
- 15 quires blank bills of exchange.
- Quartermaster's blanks—
- 6 reams No. 11.
- 2 do No. 12.
- 10 do No. 13.
- 10 do No. 24.
- 2 do No. 25.
- 10 do No. 26.
- 2 do No. 27.
- 10 iron safes ; three large, five medium, and two small.
- 3,000 grain-sacks, strong bagging.
- 8,000 horse shoes.
- 10,000 mule shoes.
- 50 grass-scythes.
- 60 scythe-snaths.
- 80 scythe-stones.
- 500 wagon-whips.
- 300 sets of six-mule harness, with fifth chains and lines.
- 50 canvass covers.
- 100 tarpaulins.
- 100 shovels.
- 150 spades.
- 60 coils of Manilla rope, $\frac{3}{4}$ inch.
- 10 coils picket rope, $1\frac{1}{4}$ inch.
- 12 coils small hemp cord.
- 20 barrels rosin.

- 20 dozen horse-shoe rasps.
- 5 dozen wood-rasps, half round.
- 24 two-horse harness, light.
- 50 dozen blacksmith's files, assorted.
- 12 do crosscut saw-files, assorted, eight-inch.
- 8 do whip-saw files, assorted, five and six-inch.
- 50 do handsaw files, assorted, four-and-a-half and five inch.
- 12 do horse phlemes.
- 50 boxes window glass 10×12 .
- 50 do do do 8×10 .
- 6 glazier's diamonds.
- 3,000 pounds white lead, ground in oil.
- 100 do lampblack.
- 100 do paints, assorted, ground, and in canisters.
- 5 paint-stones.
- 5 mortars and pestles.
- 5 mullars.
- 2,500 pounds horse-shoe nails.
- 24 tin lanterns.
- 24 glass lanterns.
- 200 sides harness-leather.
- 100 sides bridle-leather.
- 100 papers saddler's needles.
- 50 papers sail-needles.
- 40 barrels linseed oil.
- 15 do sperm oil.
- 10 do neatsfoot oil.
- 50 pounds yellow ochre.
- 15 dozen padlocks, assorted.
- 12 dozen door locks, assorted.
- 50 stock-locks.
- 300 hames, iron, for horse-harness.
- 500 hames, iron, for mule-harness.
- 5 sets saddler's tools, complete, in chests.
- 12 sets carpenter's tools, complete, in chests.
- 12 blacksmith's vices, bench, iron.
- 12 do do hand, do
- 12 do screw-wrenches.
- 500 leather halters, with head stalls.
- 100 wagon-hamners.
- 200 wagon-covers, extra.
- 200 mule-collars, extra.
- 300 pounds white chalk.
- 50 pounds red chalk.
- 5 blacksmith's stocks and dies, $\frac{1}{2}$ to $1\frac{1}{2}$ inch.
- 30 fifth-chains, extra.
- 100 breast-chains, extra.
- 75 bearing chains, extra.
- 50 log-chains.
- 500 halter-chains.

- 500 trace-chains.
- 600 horse-brushes.
- 600 curry-combs.
- 600 kegs cut nails, assorted.
- 75 kegs wrought nails, assorted.
- 5,000 pounds spikes, wrought, principally large, for wharves and bridges.
- 50 kegs cut spikes, assorted.
- 500 quarter-augers, assorted.
- 50 pounds alum.
- 500 saddle-blankets.
- 500 water-buckets.
- 25 well-buckets.
- 20 cow-bells.
- 100 whitewash brushes.
- 100 painter's brushes, assorted.
- 200 single-trees.
- 100 double-trees.
- 10 bushels clover seed.
- 20 boxes garden seeds.
- 100 wagons, complete, with iron axletrees. (These will not be required if the commission for the settlement of the boundary line be dissolved, as is expected.)
- 300 felling axes.
- 50 broad-axes.
- 50 hand-axes.
- 20 foot-adzes.
- 6 cooper's adzes.
- 10 blacksmith's anvils.
- 50 papers saddler's awls.
- 100 saddler's awl-handles.
- 15 pounds assafœtida.
- 20 blacksmith's buttresses.
- 10 gross iron roller-buckets.
- 2 gross brass roll-buckles.
- 200 nose-bags.
- 10 pounds blue stone.
- 10 dozen iron door-bolts, assorted sizes.
- 20 pounds beeswax.
- 24 braces and bits.
- 50 pounds borax.
- 12 smith's bellows.
- 10 dozen socket-chisels, assorted sizes.
- 7 dozen framer's chisels, assorted sizes.
- 3 dozen mortice-chisels, assorted sizes.
- 12 carpenter's compasses.
- 10 lbs. calomel.
- 10 lbs. camphor.
- 10 lbs. copperas.
- 5 lbs. lunar caustic.
- 15 cooper's froes, assorted sizes.

- 300 nail-gimblets, best quality, assorted sizes.
- 60 spike-gimblets, best quality, assorted sizes.
- 100 carpenter's gouges, best quality, assorted sizes.
- 200 saddle-girths webbing.
- 200 carpenter's hatchets.
- 20 blacksmith's sledge hammers.
- 50 blacksmith's hand hammers.
- 50 blacksmith's shoeing-hammers.
- 50 blacksmith's pivoting-hammers.
- 30 saddler's hammers.
- 20 blacksmith's set hammers.
- 200 carpenter's claw-hammers.
- 50 carpenter's gauges.
- 200 file-handles, assorted.
- 300 axe-handles, hickory.
- 50 dozen pairs butt hinges, assorted.
- 300 pairs strap hinges.
- 100 field or garden hoes.
- 25 tons bar iron, best quality, round, flat, and square.
- 15 bundles hoop iron, assorted sizes.
- 30 bundles nail rod iron, assorted sizes.
- 12 soldering-irons.
- 50 drawing-knives.
- 50 blacksmith's paring-knives.
- 24 saddler's knives.
- 24 shoe knives.
- 18 glazier's knives.
- 50 chalk-lines.
- 10 lbs. sugar of lead.
- 6 dozen bottles castor oil.
- 6 dozen bottles olive oil.
- 5 dozen bottles British oil.
- 5 dozen bottles opodeldoc.
- 5 dozen bottles oil of spike.
- 5 lbs. opium.
- 100 lbs. castile soap.
- 6 bushels flaxseed.
- 100 lbs. sulphur.
- 100 lbs. Glauber's salts.
- 50 lbs. saltpetre.
- 15 lbs. sponge.
- 50 lbs. hemp bagging-twine.
- 24 carpenter's pincers.
- 36 saddler's punches.
- 6 saddler's spring-punches.
- 50 jack-planes.
- 20 fore-planes.
- 40 smoothing-planes.
- 12 screw-plates and taps.
- 36 carpenter's two-foot rules.

- 1 gross martingal rings.
- 24 iron two-foot squares.
- 24 trying squares.
- 12 Turkey oil-stones.
- 12 wagon jack-screws.
- 12 carpenters' bench screws, (wood.)
- 200 surcingles, webbing.
- 1,500 lbs. cast steel.
- 500 lbs. American blistered steel.
- 500 lbs. English blistered steel.
- 500 lbs. German blistered steel.
- 200 lbs. solder.
- 4 dozen saw sets.
- 100 handsaws, assorted, cross-cut and rip.
- 24 tenon saws.
- 12 whip saws.
- 50 screw drivers.
- 20 reams sand paper, assorted.
- 100 gross wood screws, assorted.
- 36 spoke shaves.
- 100 M. cut iron tacks, assorted sizes, above 6 to 10.
- 50 M. copper tacks, assorted sizes, above 6 to 10.
- 50 lbs. saddlers' thread.
- 50 barrels tar.
- 50 boxes tin.
- 5 barrels spirits of turpentine.
- 20 bolts of webbing.
- 24 monkey screw wrenches.
- 100 masons' trowels.
- 50 plastering trowels.
- 2,000 lbs. sheet zinc.
- 500 pairs dragoon spurs.
- 20 ploughs.
- 10 scrapers.
- 50 wood rakes.
- 20 iron rakes.
- 1 pile driver and apparatus.
- 3 large launches, with sails, one to be half decked.
- 100 lbs. glue.
- 10 glue pots.
- 6 ox carts.
- 12 chopping axes.
- 2 sets pump augers.
- 5 dozen sash tools.
- 100 double window sashes, 8×10 .
- 100 double window sashes, 10×12 .
- 5 rolls sheet lead.
- 5 gross papers of brads.
- 2 dozen hay forks.
- 2 dozen stable forks.

- 20 dozen corn brooms.
- 3 turning lathes.
- 3 sets turners' tools.
- 1 shingle machine.
- 4 timber wheels.
- 12 cant hooks.
- 3 dozen iron wedges.
- 12 sets dry measures.
- 5 dozen office chairs.
- 6 steelyards.
- 50 kegs litharge, in small kegs.
- 20 bladders putty.
- 12 spatulas.
- 15 kegs blasting powder.
- 3 sets blasting tools.
- 20 ox yokes and bows.
- 5 drags.
- 5 sets harness for 2 dray horses.
- 20 pieces domestic cotton shirting.
- 20 well pumps.
- 1 forcing pump.
- 100 boat oars, 30 of 20 feet, 30 of 18 feet, and 40 of 16 feet long.
- 6 chain cables, 1 inch in diameter, 90 fathoms long.
- 4 chain cables, 2 $\frac{1}{4}$ inches in circumference, 90 fathoms long.
- 300 feet lead pipe.
- 6 sets of charts of the California and Oregon coasts.
- 6 sets Wilkes's charts of Puget's sound and Columbia river.
- 6 odometers.
- 50 window sashes, glazed, 10 \times 12.
- 1 suit of sails for schooner *Invincible*.
- 1 suit of sails for the schooners *General Patterson* and *Captain Lincoln*; should steamers not be sent supplied for the Quartermaster's department. If they should be, I would recommend that the last two schooners be sold, they being ill adapted for the service. The sails can be made at New York, where patterns are preserved.

D. H. VINTON,
Major and Quartermaster.

DIVISION DEPOT, NEAR BENICIA.
January 10, 1850.

MAJOR: Agreeably to your instructions, the report which follows is respectfully submitted:

I entered upon duty and took charge of the property pertaining to the Quartermaster's department on the 1st day of July, 1849. The position for a depot "near Benicia," destined to supply the Pacific division, had, as you are aware, been chosen, and the stores transferred to that place, before I had taken charge, and in advance of the erection of any storehouse.

I found, accordingly, the property for which I had become responsible deposited upon the ground, under canvas covers, in charge of an agent and without the security of a guard. Nominally, two companies of the 2d infantry were tented at this point, and the officers of these companies quartered on board of a storeship moored to the shore.

I repeat that the men were soldiers only in name, and were companies by designation, not by number. They were without discipline, subordination, or control, and depredated upon rather than protected the public property.

I found two houses, intended for officers' quarters, in the course of construction, under the direction of the commanding officer of the troops, and a temporary wharf or a staging erected connecting the store-ship with the shore.

I began and have continued business with a tent for my office and quarters; and having charge of the revenue funds, as well as the regular funds of the department, I have been encumbered with masses of silver money in wooden boxes, piled up within these confined limits and insecure walls.

My attention was at first directed to the completion of the buildings commenced, but which were but little advanced, and to the erection of a third house and a barrack. I proceeded to San Francisco and employed a large number of mechanics, and, having transported them to this place, organized them into parties, and so commenced my operations. The lowest rate of pay for which the services of any mechanic could be obtained, was eleven dollars per day; that of a laborer five; the current wages at San Francisco and neighboring places exceeding very considerably this standard. High wages and constant occupation, however, were insufficient to incite to industry, or promote contentment. The mechanic, by virtue of his superior emolument, became superior, in self-estimation, to his employer; his rations were too meagre, his tent too uncomfortable, his liberty too much restricted. A miner would occasionally call in passing, and report great success in gold hunting; and the spirit of independence thus excited broke out from time to time in demands for increase of pay, better eating, and more approved accommodations. I adopted the rule of discharging, promptly, all malcontents; but the necessity of supplying their places from a distance, of organizing new parties, to become in a short time as unreasonable and disaffected as the old, has been one of the labors and one of the vexations to which I have been subjected.

The buildings for the officers of the garrison were constructed on plans approved before I had taken charge. The plan of the barracks was, I believe, of your own suggestion. The last of these buildings was completed about the 25th of October, 1849.

A storehouse for the depot, a plan of which had been submitted and approved prior to your leaving for Oregon, was the next undertaking. It was completed about the 1st of November, 1849. Two cisterns, of capacity to contain ten thousand gallons of water each, were connected with this storehouse. A building for offices, and quarters for the officers of the depot, a capacious carpenter's shop, a blacksmith's shop, and stable, were the next improvements commenced; and being now finished, the

principal constructions at this post are enumerated. Plans of the buildings, descriptive of their respective capacities, accompany this.

The first rain fell on the 9th of October. This was entirely unexpected, as the rainy season does not usually commence until a month later.

At this period the storehouse had not progressed to its roof, but, by concentrating the whole mechanical force upon it, I was enabled to roof it, and to get all the public stores, exposed, under cover before the succeeding fall of rain. This property has consequently sustained no material damage.

The lumber expended in the buildings I have named has been obtained from Oregon, from Santa Cruz, and from Costa Medeira. The Oregon lumber has proven very difficult of reduction to building use—it is hard, coarse, knotty, and flawy, and is subject to enormous waste in the hands of the carpenters. It being impracticable, for the lack of lime, to plaster, the rooms destined for officers' quarters have been ceiled, and the boards have been dressed by the hand-plane. The interior finish of these quarters has been accomplished at a great expenditure of mechanical labor.

At Costa Medeira, where the saw-mill of the department is located, commodious stables have been built to shelter and secure the animals worked in and about the mill. This mill has accomplished but little; it has required repeated repairs, and the saws, after three months' use, have become entirely unserviceable. Whether the fault is in the circular form of the saws, in the metal, or in the management, I am unable to say; but the mill is a failure, and I regret to say an expensive one. The least profitable mill for this country is that driven or propelled by horse power, as the cost of feeding the animals is greater than the expense of keeping in operation a steam-engine, and the form of saw best adapted to the timber is the "up and down" one. Taking this view of the matter, after the failure of the horse-mill, I procured at once a steam-engine, fifteen horse-power, and a new mill is now in progress of erection. I understand you to say that I have in this matter transcended my authority. Having exercised my best judgment, and believing, in fact knowing, that the interest of the service is, or will be subserved by the measure, and there being no authority short of Oregon to refer to, I shall abide the responsibility of the act.

Not the least difficult duty of the depot relates to transportation. It is the most expensive branch of the service, and is embarrassed by the manner in which shipments are made from the Atlantic side. Public stores destined for San Diego, an intermediate point, have been shipped to San Francisco, with instructions to tranship them to the former place. It is time that it should be known in the States that the backward transportation will add two hundred per cent. to the original freight bill.

The transports belonging to the department have not been sufficient to meet all its wants. The "Anita" has been employed in transporting lumber from Oregon. The "General Patterson," after her release from the command of Major Kingsbury, was despatched to Oregon with General Smith and party, and has been absent to the present time on that duty. The "Captain Lincoln" was sent by your orders to San Blas for

forage and mules. She was absent three months, accomplishing but partially the object of her errand. The "Mary Jane" has made a trip to Monterey with General Riley and party, two trips to Santa Cruz for lumber, and is now absent on a trip to San Pedro with commissary's stores. The "Invincible" has been employed actively, in running between this port and San Francisco, and in transporting supplies to the upper Sacramento; besides which, she has made two trips to Santa Cruz for lumber.

I had difficulty in furnishing transportation for the exploring party, of which the late Captain Warner had direction, and for the escort that accompanied it, under Brevet Lieutenant Colonel Casey. It was confidently predicted that the department would fail, in this instance, in meeting the requirements of General Smith; but I succeeded in procuring pack-mules at the Sonoran camp, on the river Stanislaus, and had them driven direct over the barren mountainous region that separates the valley of the San Joachin from that of the Sacramento, a distance of one hundred miles, and assembled and equipped at the place of rendezvous before the exploring parties had completed their personal arrangements for the march.

A large number of mules and horses, wretchedly poor and way-worn, have come into my possession within the last three months, being the survivors of the overland pack trains of Lieutenant Pleasanton and Captain Morris, and the return trains of the exploring expedition. About three hundred in all have thus been "turned in," as the vouchers have it, but *turned out*, in fact, as I have no enclosure of capacity to contain one-fourth of that number, and only forage enough for the animals in *actual service*. To have fed this stock would have cost two dollars each animal per day, barley being worth eight dollars per bushel; to have sold them at auction here, would have been to sacrifice them wholly. To drive and herd them in the remote valleys, where a subsistence could be gathered by the animals themselves, was to expose my accountability to the risks of losses by theft and straying. I have adopted, however, the latter alternative, it being the least objectionable of the three.

I have been enabled to procure a few thousand bushels of corn and barley in Nappa valley, transporting it, in our own wagons, a distance of twenty miles. The lowest rate at which I have purchased has been \$2 50 per bushel; the highest \$4.

The cargo of barley contracted for by yourself with the firm of Cross, Hobson & Co., arrived in the harbor of San Francisco a few days since. It came in an opportune time. A quantity of oats destined for the supply of the escort and trains of the boundary survey, has since arrived at the same place, per ship Warwick.

After being advised that the posts of Oregon were destitute of forage, and dependent upon this depot for supply, and that the quantity on board the Warwick was greater than would be required at San Diego, I caused three thousand bushels to be taken from the vessel; fifteen hundred of which I shipped to Oregon in the transport "Anita," adding to it fifteen hundred bushels of barley taken from this depot.

Present appearances lead to the conclusion that the department in California and Oregon must derive, for some years, its supply of grain from foreign ports, or from the Atlantic side. It can be procured at Valparaiso, and will cost, when delivered here in merchant vessels, about

\$2 per bushel. Abundance of hay, however, can be obtained by cutting and curing the wild oats and grass that grow luxuriantly in the neighboring valleys and on the borders of the water-courses. It may have to be transported fifteen or twenty miles, but can be reached by water. Wood in abundance can be obtained from the banks of the Sacramento, from Costa Medeira, and in sufficient quantity to supply the post from Diablo valley, opposite this place.

Costa Medeira, distant from this point twenty miles, is the best locality probably in California, from whence to derive lumber. From five to ten millions of feet may be cut at that place from the "red wood" that grows upon the hill-side within a mile of the "embarcadero," where it can with facility be transported in large flats down into the bay of San Pablo, three miles distant, and taken upon vessels of every class.

The department has an indefinite lease on this timber, which empowers the quartermaster to cut to any amount, the consideration being five dollars per thousand feet.

In addition to the duties which I have hastily and very imperfectly enumerated, as having devolved upon me as assistant quartermaster at the division depot, I have been charged with all the payments made on account of the civil government of California. This civil duty has been arduous, responsible, and exceedingly vexatious.

The counting and re-counting of a million of money of every foreign variety, in fractional shape, has not been a simple task; but the revision of the collector's accounts has been even more complex and laborious.

My attention has been so much required out of my office, that I have not had time to review my quartermaster's papers for settlement. I have transmitted regular summary statements of purchases and expenditures, which will show the amount of money received from the quartermasters' fund, and also the amount transferred to the department expenditures from the revenue funds of California. I subjoin in a separate paper (A) a consolidated account, which will exhibit the same statements in one view.

The accounts arising under the civil government of California have not all been presented for payment. These accounts having no connection with disbursements made in my capacity as quartermaster, I shall transmit them through the appropriate channel when completed. I annex, however, a summary statement of this fund, (B,) from which it will be seen that not more than \$100,000 will be available for military service after the demands of the civil service shall have been satisfied.

I am, very respectfully, your obedient servant,

ROBERT ALLEN,

Brevet Major, and Assistant Quartermaster.

Major D. H. VINTON,

Chief Quartermaster, Pacific Division.

DEPOT NEAR BENICIA, CALIFORNIA,

January 5, 1850.

MAJOR: In conformity with your instructions directing that the boring of an artesian well should be commenced at this point, I have to report that the work was commenced on the 3d of September last, and has been steadily pursued up to this date—employing one mechanic and two laborers. The spot selected has an elevation of about ninety feet above tide-water in the straits. The actual number of days worked has been ninety-three, and the number of feet passed through one hundred and sixteen—giving a depth of twenty-six feet below tide for the bottom of the bore, which has a uniform diameter of five inches.

The earth passed through in this time has presented but one decided change in its general appearance and character—that is, from a yellowish clay, mixed with a small proportion of sand and occasional intrusive sandstone rocks, to a blue clay, containing, also, a number of incidental rocks, varying from one to two feet in thickness, of very compact texture—the composition being an impure carbonate, probably of lime. The yellow clay is met with about five feet below the surface, and ceases at a depth of thirty-six feet and ten inches, where the blue clay begins, and in which latter the boring continues at this date.

Throughout the whole depth of the well, the borings exhibit the presence of calcareous matter—evident only, however, by the test of an acid. In addition to this, minute crystals of mica and small nodular masses of iron pyrites are frequently met with. Water has been found at three different points: First between the yellow and blue clays, at a depth of thirty-six feet and ten inches. This supply, however, was exceedingly small, and has since almost entirely ceased. Next at a depth of sixty-four and a half feet, immediately after passing through a limestone rock one and a half foot in thickness. This supply, although totally inadequate for any useful purpose, was much greater than the first. The third occurs at a depth of seventy-nine feet, and affords a much greater quantity than the others, though still too slight to be available, as, by experiment, the water rose fifteen feet during the first three hours after emptying the bore, and but eight feet during the next fourteen hours. After some days, it rises to within forty-two feet of the orifice of the bore, where it rests.

Since the commencement of the rainy season, there has been no perceptible increase in the supply of water from that cause; neither has it ever risen higher than within forty-two feet of the orifice, as before stated.

It is proper to state in this place that, by experiment just tried at the present depth of one hundred and sixteen feet, the water is found to rise with greater rapidity than before, though not to a greater height than before stated.

The boring has now reached a depth of twenty-six feet below tide, is of course below the level of all the valleys, and affords a chance of intersecting some vein of water having a distant source, as, for instance, large springs and sources of water on both sides of Monte Diablo, which are known to exist, and that, too, at an elevation of several hundred feet above this point. In opposition to this, however, is the fact that all the strata in this section of the country are highly inclined, often nearly vertical—a condition extremely unfavorable to the passage of water from dis-

tant points. The quality of the water, so far as obtained, appears to be good: it settles clear, and has no saline taste whatever.

In conclusion, I have to remark that the imperfect nature and construction of the implement used has greatly retarded the progress of the work, rendering it difficult to preserve the vertical direction of the bore—any considerable departure from which is very detrimental, especially where rocks occur and the use of a drill becomes necessary. With proper implements, greater progress and less expense would, of course, attend the prosecution of the work.

Very respectfully, your obedient servant,

GEORGE C. BOMFORD,

Major D. H. VINTON,

Principal Quartermaster, Pacific Division, U. S. A.

B.

Memorandum of Revenue Funds.

Total amount received by me including amount turned over to me by Brevet Major Fitzgerald, assistant quartermaster	-	-	-	-	-	\$1,004,058 55
Transferred from the foregoing to quartermaster's department from July 1, 1849, to January 10, 1850—total	-	-	-	555,000	00	
Transferred to Pay Department	-	-	-	46,886	00	
Turned over to Major Ruckers for emigrants' relief	-	-	-	100,000	00	
Expended for civil purposes	-	-	-	152,193	00	
Supposed liabilities of civil fund	-	-	-	49,979	55	
						<hr/> 904,058 55
Balance available for department of military service	-	-	-	-	-	<hr/> <hr/> \$100,000 00

ROBERT ALLEN,
Brevet Major and Assistant Quartermaster.

POST NEAR BENICIA, CALIFORNIA, January 10, 1850.

Report of amount of civil fund used for Quartermaster's Department by Brevet Major E. H. Fitzgerald, assistant quartermaster U. S. A., in the 2d quarter of 1849, (Major F. drew none in any other quarter,) viz:

Seventy thousand dollars, (\$70,000.)

EDWARD H. FITZGERALD,
Brevet Major and Assistant Quartermaster, U. S. A.

To Major VINTON, Q. M. U. S. A.
Benicia, California.

STATE DEPARTMENT,
Territory of California, Monterey, May 15, 1849.

SIR: I am directed to acknowledge the receipt of your letter of the 4th instant; and to inform you that you have permission to turn over from the civil funds to the Quartermaster's department the sum of one hundred thousand dollars, taking the proper receipt for the same.

This transfer is to be regarded as a loan, and is to be restored to the civil

fund as soon as the Quartermaster's department may have the means available for doing so.

By order of Governor Riley :

H. W. HALLECK,
Brevet Captain and Secretary of State.

To Brevet Major FITZGERALD,
Asst. Quartermaster, San Francisco, California.

Official :

EDWARD H. FITZGERALD,
Brevet Major and Assistant Quartermaster.

To Major D. H. VINTON,
Quartermaster U. S. Army.

QUARTERMASTER'S OFFICE,
Monterey, California, June 22, 1849.

MAJOR: In reply to your communication in regard to the resources of this district of country, I have the honor to state :

1st. In regard to building materials, any amount of pine logs may be had on the spot, of an excellent quality to erect log buildings ; lumber may be obtained by making arrangements beforehand, at Santa Cruz, twenty-four miles across the bay ; large forests of red-wood trees grow within nine miles of the place, from which shingles can be obtained of the best quality. Around the town are extensive quarries of a species of limestone, or more properly called claystone, which is quarried with little or no labor, and makes a very good building material for this climate. The clay of this country, from its containing a large amount of lime, answers every purpose of mortar. There is also here good brick-clay. For fuel, the country is well supplied with wood on the spot. For forage, the grazing about four miles from here, where most of the public animals are now kept, is pretty good the year round. Last month I cut fifteen or sixteen tons of excellent hay. It was my intention to have cut more, but I was obliged to desist for want of hands. Barley I have not yet been able to obtain here, all my supply being drawn for from San Francisco ; but I have lately understood that a Californian, residing about thirty miles from this place, has a large quantity planted, and the department might possibly obtain from him six or seven hundred bushels, if engaged soon.

I would beg leave to suggest the propriety, if possible, of adopting some other means of sending the public mail to San Diego. From July till March little or nothing can be obtained on the road for an animal to live on. I have had two fine animals ruined from the journey ; and in the United States corral I should think there are fifteen unserviceable, which I understand were broken down last winter by the express south. It will be necessary before the winter is through to purchase more animals if this express is kept up. The mail leaves here once a month. There is no military post or station between here and San Diego. The steamer also

leaves San Francisco once a month, and I believe stops at San Diego, both going and returning.

With much respect, your obedient servant,

ALFRED SULLY,

1st Lieutenant 2d Infantry, R. Q. M. and A. A. Q. M.

To Major VINTON,

Quartermaster U. S. A., San Francisco.

Remarks.—The mails from San Francisco are now conveyed to San Diego and Monterey by the steamers.

D. H. VINTON, Quartermaster.

QUARTERMASTER'S OFFICE,

Fort Vancouver, Oregon Territory, August 27, 1849.

MAJOR: I have the honor to acknowledge the receipt of your communications of June 17th and 22d. They came to hand only a few days since.

In reply, I have to state that a copy of my monthly summary statement, and report of persons and articles hired and employed during the month of July, 1849, had already been forwarded to you.

I have to ask that you will excuse my not forwarding a copy of my property return and estimate (in proper form) for funds. I have but a very few articles of public property on hand, that I have actually receipted for. I do not include the stores received by the transport Walpole—they are still unexamined; but early in October I shall transmit to your office, copies of my returns, &c., with information relative to the military resources of this Territory.

I do not know the number of troops (riflemen) destined for Oregon this winter, nor the probable amount of stores, funds, &c.; consequently I cannot make out my estimate with any correctness. I presume you are in possession of the Quartermaster General's views with regard to military establishment in this Territory. Up to this time we have heard nothing regulating the creation of posts, &c.

By direction of Major Hatheway, I am now making this point the depot. It is certainly the most eligible of any that I have seen in the country. Major Hatheway's company will take quarters here for the winter. I have them all in readiness now, and have rented a sufficient number of buildings in Oregon City, I think, to accommodate all the rifle regiment that may arrive.

I have purchased from six to eight thousand bushels of oats, all that are raised this year, and some one hundred tons of hay. Nothing more can be relied on; and, as it will not be enough to forage all the animals until another harvest, most of them must be grazed during the winter. I have selected a good place in the interior for a grazing camp.

The expenses of the department in this Territory will necessarily be great for the next year. I am now nearly out of funds, and hope those ordered here by you will soon arrive. My returns will show the manner of my disbursements. The charter party, made by General Whiting, with

the transport "Walpole," has proved an expensive one. He chartered her for Astoria, where there are no troops, no storehouse, nor the slightest convenience for discharging. I am at great expense and embarrassment in trying to discharge her. Much time and money would have been saved had there been a public vessel in the river. Major Hatheway is now absent on a trip to Puget's sound and Nisqually. Lieut. Talbot is also absent, exploring south for coal, &c. On their return I shall be able to forward you some information in detail, which may throw some light on the resources of the Territory; at present but little is known with any accuracy.

I am, sir, very respectfully, your most obedient servant,
RUFUS INGALLS,
Captain and Assistant Quartermaster.

Major D. H. VINTON,
Chief Quartermaster, Benicia, U. California.

CHIEF QUARTERMASTER'S OFFICE,
Eleventh Military Department, Fort Vancouver,
Oregon Territory, October 17, 1849.

MAJOR: I have the honor herewith to enclose you copies of my monthly summary statement, and report of persons and articles employed and hired, for the month of September, 1849. I also enclose a memorandum of my disbursements for labor during the time I have been on duty in Oregon.

I take this opportunity to comply, so far as I may be able, with your circular of June 17, and your letter to me of October 11, 1849. This will give you the information required, taken in connexion with my letter to you of August 27.

I arrived at this point from California, and reported to Major Hatheway, then commanding this department, on the 25th of May last. I came in the United States barque Anita, and found the Massachusetts here, ready to take in cargo. Both of these vessels I took to Portland, (a place 12 miles up the Willamette from its mouth, and near 100 from Astoria,) and caused them to be loaded with assorted lumber for use of government in California. It was not then until the 12th of June that I was able to commence duty at this place. Major Hatheway's command was in tents, and winter quarters were required to be prepared for it. The rifle regiment was looked for near the beginning of the rainy season, and it became necessary to provide winter shelter for it, by renting, if possible, buildings in Oregon City, as this place is the only one in the Territory where a sufficient number could be obtained; and, as it will be seen, no laborers could be employed to erect temporary buildings. In addition, I had to send forward a large quantity of supplies, to meet the wants of the rifle regiment, to Fort Hall; to purchase what forage I could, for use the coming winter; to discharge the transport ship Walpole, and to provide store-houses; and to make some tours of observation to various points of the Territory, in order to report on the resources of the country. The manner in which these duties have been performed, you can understand from

actual inspection on your part, where the following details may prove deficient.

During the month of June I employed soldiers on extra duty to prepare timber from the woods, and raft down lumber from the mills (6 miles above here,) for buildings to accommodate Major Hatheway's command this winter. The expense incurred amounted to \$31 05. So little was done, however, and desertions and dissatisfaction happening, that from the 1st July I promised to each soldier \$1 per day, authorized by orders from division headquarters. On the 15th September following I had completed all the necessary buildings, and since then have paid no extra allowance. The whole amount paid extra-duty men is \$1,390 22. I could not employ any citizen mechanics, and all the work has been performed by the labor of enlisted men.

From my observation, added to all reliable information I could obtain, it was easy to see that this point was much the most eligible in the Territory for the depot, and probably for the headquarters of this department, the only objection being that the Hudson's Bay Company, south of 49° north latitude, have their principal establishment at this place. I have made a contract with this company that all betterments and improvements made here by the United States government shall always remain subject to the orders of myself or my successor. On the arrival of the transport ship "Walpole" at Astoria, with a cargo of over 12,000 barrels of army stores, I deemed it expedient to collect them here and make this the depot. It has caused the charter party made by General Whiting to be an expensive one, but there was no alternative. At Astoria there were neither troops nor any means of discharging, storing, or protecting the stores. This vessel could have sailed here easily, but for the terms of the charter party. This point may be considered as the head of ship navigation, (except for light craft,) and is about 90 miles inland from Astoria. It is, besides, a point to which all supplies can be accumulated, and from which they can be easily, and at all times, transported to the important parts of the Territory. This is a point, in fact, which combines more resources, in a military point of view, than any other yet known to us. In this vicinity there is a sufficiency of timber for all building purposes, with saw and grist-mills within six miles. There is an abundance of good arable land, with pasturage for any number of animals. The communication between this and the interior is always easily effected by the waters of the Columbia and Willamette rivers.

I have erected at this place one building, 90 feet long and 25 feet wide, containing eleven rooms, occupied as quarters for the officers of Major Hatheway's command; one building 24 feet by 12, containing two rooms occupied as officers' kitchen and servants' room: two buildings 40 by 20 each, containing 4 rooms, occupied as company mess-room and kitchen, hospital kitchen, and bake-house. These buildings are, of course, made of rough material, but are considered sufficiently comfortable for our purposes this winter. In addition, I have finished two large two-story buildings, 50 by 40 each; that is, have laid the floors, put in the windows, made partitions, &c. They are occupied as quarters for company "L," 1st artillery, company laundresses and hospital matron, company store-room and commissary depot.

In doing all this work I have consumed about 60,000 feet of lumber, which has cost near \$3,600.

All other timber, &c., has been furnished by my working parties. The whole expense, then, including lumber, pay of soldiers, &c., will not vary much from \$5,000. I have some small buildings, say ten, under rent from the Hudson's Bay Company, as shown by my report of articles hired, used as quartermaster's office, clerks' quarters, commissary's store-room, stables for public animals, guard-house, quartermaster's store-room, &c., at a cost of about \$225 per month. It was rendered necessary to incur this expense, as lumber was very high, and labor could not be obtained to erect the buildings required.

The rear of the rifle regiment arrived at Oregon City, a place situated on the Willamette river, 24 miles from its upper mouth, on the 11th or 12th instant.

There are six companies of the rifles now in Oregon City, comprising three hundred men and twenty-two officers.

I have rented a sufficient number of buildings to place this force in comfortable quarters during the winter. The buildings rented are the best in Oregon, and will be at the disposal of this regiment until next May, when it is presumed it will be required to create its own quarters. The expense of rent will amount to about \$700 per month. My report for October will give you all of the amounts accurately, the designations of the houses, &c. I am unable to state it now, inasmuch as the houses are not yet assigned.

On the 1st of July I sent Lieutenant G. W. Hawkins forward with a train of some fifteen wagons, loaded with supplies for Fort Hall, to meet the rifle regiment. It is supposed Lieutenant Hawkins is now at Fort Hall, as he left with all that was necessary to insure his success.

By the transport ship "Walpole" stores of all kinds, and enough for two years, were received. I have a large assortment of quartermaster's property yet unexamined, but apparently agreeing nearly with the list sent me by you from California. In a few days they will be examined, and my receipts forwarded to General Whiting. I cannot now inform you if any other stores may be wanted. I think none will be required within the next twelve months; but as you may know better than myself what is proposed to be done here, and as you know what stores are here, I must leave it to you to suggest what is proper. Before you return to California I will place in your hands a copy of my property return.

I have made provision to winter all the public animals that came with the rifle regiment, and can take charge of them as soon as the proper officers turn them over to me. So far as my observation goes, there will be some four hundred mules and one hundred and fifty horses to be taken care of by my agents.

As I stated to Major Cross, I can forage fifty animals in Oregon City, and thirty at this place—all others must necessarily be grazed in the interior at points already selected by me. There has been very little forage to be obtained this year in Oregon, and I have experienced much embarrassment in collecting some three thousand bushels of oats, and about one hundred tons of hay. It has been gathered in small quantities from the farmers in the interior, and at an average price of say \$1 75 per

bushel, and \$30 per ton. I have requested Major Allen to forward me what forage he may be able to spare, provided he can obtain any on the South American coast.

It is understood that most of the animals have arrived in a very worn down condition, and will require constant and tender care during the winter.

My means of transportation are ample enough, situated as the troops now are. I can easily supply the portion of the regiment now at Oregon City by means of river boats—the distance by water being thirty miles. There can be no supplies sent by land (the distance being twenty-five miles) until roads are opened. A rough horse trail is the only one now open between this and Oregon City. It is cheaper always to forward supplies in this country by water than by land, and it is probable that the disposition of the troops will be such as to render it practicable by water.

Captain Hill's company was sent to Nisqually, on Puget's sound, near the middle of July last, by water, with supplies for one year. He is now situated at a point seven miles from Nisqually, and is in comfortable quarters for the winter. Should he require stores they can be sent by this river thirty miles, then up the Cowlitz river forty miles, and from that point must be packed fifty miles to reach him. It is believed that a wagon road can be opened from this point to Nisqually, and that by so doing would shorten the distance and facilitate the means of communication; but as yet there are but two ways of reaching Nisqually—one by sea, and the other by the Cowlitz river.

I have visited the valley of the Willamette, lying south from here, and found good roads and a fertile district of country. Probably the Yam-Hill country is the most productive in Oregon. It is certain that the main portion of the inhabitants (farmers) live in this valley. Most of them, however, were absent in the mines of California, leaving their farms in a state of utter neglect. I have found it almost impossible to employ any citizen laborers at any price, for the reason that all of them have gone or are going to California; and when employed they ask from five to ten dollars per day. This state of things (similar to what exists in California) has embarrassed me much, and has forbidden my making many arrangements that were required for our comfort and the good of the service. It has greatly affected Indian labor, which cannot now be relied on, except as boatmen. I give them from one to three dollars per day, but employ them only occasionally on the water. The rifle regiment must depend upon its own labor for its improvements next year.

With regard to the military resources of this Territory I cannot say much from actual observation. There is an abundance of building material (fir timber) in all parts of Oregon. There are but few places where stone can be used, and then it is of an inferior quality, not used in building—it is an indifferent basalt. I have seen no limestone, and I believe there is none; what I have used has been lime made from coral, brought in vessels as ballast from the islands of the Pacific. Good brick for ordinary purposes can be made either on this river or the Willamette, but I am told that they do not answer well for fire-brick. I have made a chimney of them, but have not had time to test them properly. In most cases lime

mixed with the soil and straw, well prepared, has been found to make a good "adobe" or brick for chimneys. Coal has been discovered on the upper Cowlitz, on the Columbia near the Cascades, and near the river Alce, or bay of that name; but good samples have not yet been produced—it has always been surface coal of inferior quality. Many are of opinion that large and productive coal-beds exist in this country.

Major Hatheway has made a tour to Puget's sound, and Lieutenant Talbot made a trip of exploration south; but I have never seen their reports. It is probable that General Smith will receive them before his departure for California.

Nothing of importance can be reported with accuracy now; it is a new country, and must be explored by scientific officers. Those who have been here the longest time can give no authentic information of the country beyond the large water-courses, although there can be little doubt but that the Territory is rich in mineral and other resources.

I must call your attention to the price paid my chief clerk, Mr. L. Brooke, (\$250 per month,) and request that I be permitted to retain him at *any* reasonable cost. He is of most excellent character—has always been connected with the army as clerk—is intelligent, trusty, and invaluable to me here. No other person, as you know, *can* supply his place with me; and should he refuse to serve, if his salary be reduced, I am left here crippled in my operations. I make this statement for the reason of his faithfulness to me, and his great desire to be useful to the service.

With regard to funds, I have to inform you that mine are entirely exhausted. I had expected \$30,000 from California long since. No proper estimate has been made out, because, up to this time, I have not possessed the necessary data to base an estimate upon. But as you now can understand the wants of the department here, and my situation, as seen from my accounts, I would respectfully request that you may order Major Allen to turn me over whatever you deem proper. In the absence of an estimate I could say that \$50,000 will be wanted, and a part of it as soon as possible. With your concurrence, I would like to send Mr. L. Brooke, by the "Anita," for the funds.

Whatever directions you may choose to give me for my guidance here, I shall be pleased to receive in writing, and follow out.

To meet contingencies in this Territory, I desire you to authorize me to draw on the Quartermaster General to the amount of \$15,000. Should the funds arrive in time I shall not make use of your permission.

I am, sir, very respectfully, your most obedient servant,

RUFUS INGALLS,

Captain and Assistant Quartermaster.

Major D. H. VINTON,

Chief Quartermaster Pacific Division,

Fort Vancouver, Oregon Territory.

List of buildings hired at Oregon City, occupied as barracks and quarters by the regiment of mounted riflemen, as submitted by Captain Rufus Ingalls, assistant quartermaster, Fort Vancouver.

Number and description of houses.	Rent per month.	How occupied.
2 houses of 1 room each, and 1 house of 4 rooms.	\$125 00	Quarters for rifle regiment in Oregon City.
1 house of 11 rooms; 4 houses, 1 room each; 1 house of 3 rooms, and stable and a lot.	75 00	Quarters for rifle regiment, adjutant's office, guard-house, and bake-house for the rifle regiment in Oregon.
1 house of 12 rooms.....	166 66½	Officers' quarters. Quartermaster's office. Forge-house. For public animals.
1 house of 2 rooms.....		
2 houses of 1 room each.....		
2 stables and a lot.....	50 00	Officers' quarters.
House of 4 rooms; house of 2 rooms..	25 00	Do.
House of 2 rooms.....	15 00	Hospital.
House of 2 rooms.....	40 00	Officers' quarters.
House of 3 rooms.....	25 00	Officers' quarters, commissary's store, quartermaster's store, and enclosure for public animals.
House of three rooms and kitchen, store-house, and mule lot.	25 00	Officers' quarters.
House of 2 rooms and kitchen.....	60 00	Do.
House of 5 rooms.....	75 00	Soldiers' barracks.
House of 8 rooms.....	30 00	Officers' quarters.
House of 2 rooms.....		
Total number of houses—26.....	711 66½	

List of buildings hired at Fort Vancouver for the use of the quartermaster's depot, &c., for one company of artillery, as submitted by Captain Rufus Ingalls, assistant quartermaster.

Number and description of houses.	Rent per month.	How occupied.
House of 2 rooms.....	\$30 00	Quartermaster's and commissary's store-house.
House of 10 rooms.....	40 00	Quarters for company L, 1st artillery.
Two houses, 1 room each.....	24 00	Quarters for Major Cross and party.
House of 3 rooms.....	30 00	Quartermaster's office and clerk's quarters.
Two stables and a shed.....	20 00	Stables for public animals.
House of 1 room.....	10 00	Guard-house.
House of 3 rooms.....	20 00	Quartermaster's quarters.
House of 1 room.....	12 00	Quartermaster's store-house.
Part of a store-house.....	20 00	Commissary's store-house.
House of 1 room.....	12 00	Officers' quarters.
Total number of houses—13.....	218 00	

STEILICOOM, *December 6, 1849.*

SIR: I have the honor to submit a slight sketch of what has been performed by the quartermaster's department at this post since our arrival, and an estimate of the expense incurred, together with a few remarks for your consideration upon the resources of the country and the extent of the reliance which may be placed upon them in procuring the necessary supplies.

We reached this place on the 27th of August, and commenced disembarking on the next day. The necessary teams were engaged for hauling the stores up the hill, at the rate of one dollar and a half per day—all coming from a distance of twenty-five miles, and working more for accommodation than profit. Whilst the necessary number of men were employed in looking after the discharge of the stores and their transportation up the hill, two parties immediately commenced chopping logs for the construction of quarters. More teams were procured as soon as a sufficient number of logs had been cut to make a beginning. One party was relieved from duty in the woods and ordered to commence building. Three days was the average length of time required to complete the body of the house. When the work was advanced thus far, another party took charge of the roofing, another of the building of the chimneys, and still another getting out the materials for doors and windows. Thus, all the different parties followed each other in such a manner as to be all employed at once. The building went on without delay until the four rooms now occupied as officers' quarters and the building used for a hospital were completed and ready for occupation—the first week in October. The commissary store-house was finished the next week. In the mean time, the forge was set up and a party sent into the woods burning charcoal, so that in ample time the necessary hinges and latches were ready. A party also was sent to make alterations and repairs about the building now used as company quarters. It was formerly a barn, and, when we arrived, in a dilapidated condition. The work on this was completed, and it received the company, about the 20th of September. The commissary storehouse was the first building finished; only three days were consumed upon it.

All the expenditures up to this time (the last of October) amount to about \$2,500. The value of the nails and iron, and twenty-two thousand feet of lumber—a large portion of which was rafters and three-inch plank which we brought with us—is not included in the above amount. I think that the cost of the building and repairs which have taken place here may be safely estimated at \$3,000.

The resources of the country are but few. The soil is far from being productive. The country is but thinly settled, and the communication between this place and the settlements is obstructed some four months of the year by the Nesqually river, which is only passable at intervals. A sufficient amount of forage undoubtedly would have been produced here, had the settlers known that troops were to have been sent. Next year there will be an abundant supply.

Very respectfully, your obedient servant,

GRIER TALLMADGE,

Acting Assistant Quartermaster.

Major DAVID H. VINTON,

Quartermaster U. S. Army.

P. S. The following are the dimensions of the various buildings erected by the command :

2 buildings used as officers' quarters	-	-	40 × 20 feet.
1 building used as hospital	-	-	40 × 20 do.
1 building used as company storehouse	-	-	60 × 20 do.
1 building used as guardhouse	-	-	30 × 20 do.
1 building used as commissary storehouse	-	-	61 × 21 do.
1 building used as bakehouse	-	-	14 × 24 do.

C.

WASHINGTON, D. C., *October 9, 1850.*

GENERAL: In obedience to directions from you, I have the honor to make, for your information, the following report :

I entered New Mexico in September, 1848, by the way of Chihuahua, having been ordered by Brevet Major General Wool to accompany the command of Brevet Lieutenant Colonel Washington, a portion of which was destined for California, and the remainder, consisting of one company of horse artillery and one of 2d dragoons, ordered to form the garrison of Fort Marcy at Santa Fe.

On my arrival at Santa Fe, I found the lowest bid which had been put in for the delivery of corn, to be delivered at that point, and others, where it was supposed that the troops might be stationed, in the 9th military department, to be \$1 90 per bushel. I determined to procure it by purchase from the inhabitants, and, by purchasing in small quantities, succeeded in obtaining it at Santa Fe at about \$1 60 per bushel; at some points in the Territory it was obtained as low as \$1 25 per bushel, but the transportation, by whatever means may be chosen, to the different points where it is consumed, will make the average price at least \$1 60 per bushel; nor do I think that, with any number of animals over one thousand, the price of corn can never be less, with the system now followed for supplying the troops. I will allude again to this subject, and suggest a plan which, in some degree, at least, may diminish the expense and remove the difficulty now experienced in supplying forage in New Mexico.

Of long forage, the only kind that could be procured was the cornstalk, cut down after the ear had been plucked. Of this, only a scanty supply could be obtained, at enormous cost, it being necessary to haul it over miserable roads a distance of from 8 to 30 miles. With every exertion, it was practicable to obtain but a scanty supply for the horses of the mounted force and the necessary draught animals. In connexion with this subject, I will mention that the late General Kearny, taking possession of Santa Fe, found it utterly impossible to forage the animals of his command at that point. The horses of the officers, even, were sent out to grazing camps from 30 to 40 miles distant, in the gorges of the surrounding mountains. The orders of the Secretary of War, however, no doubt influenced Colonel Washington in keeping the mounted troops at that point.

During the winter of that year, the most inclement and protracted ever known in New Mexico, expeditions were undertaken by the troops against bands of hostile Indians which infested the northern portion of the Territory. Heavy expenses were necessarily entailed thereby on the quartermaster's department, in transporting the necessary supplies for the troops engaged in them; and in March, 1849, Lieutenant Colonel Washington deemed it necessary to call into service four companies of volunteers, two of which were mounted. The cost of this force has been estimated by me in detail, being an unexpected and unusual cause of expense.

In the winter of that year, also, two parties were fitted out for California, the escort of the governor of Oregon, General Lane, and a party in charge of Passed Midshipman E. Beale, of the navy, bearer of despatches to Oregon and California. In June, 1849, the force in New Mexico was increased by four companies of the 3d Infantry and two companies of the 2d artillery, and Colonel Washington determined to attack the Navajo and Eutaw Indians in their own country. To carry out this object, a large pack-train of mules became necessary for the transportation of the stores and supplies required for the troops, as no reliance could be placed on the resources of the country for which the expedition was destined; at the same time, I was ordered to equip an escort for, and furnish transportation to, the party of Colonel Collier, the collector for California, who had been directed to take the route *via* New Mexico to his destination. The large expense thereby incurred by the quartermaster's department has been made the subject of a previous communication.

The arrival of a party from Fort Smith, under the command of Captain Marcy, 5th Infantry, acting as a protection to the emigrants to California by that route, and the refitting required by him for his return to that post, must also be considered. Add to all causes the large number of emigrants which entered the Territory at different points, nearly all requiring a complete change of outfit for the continuance of their long overland journey to California by the route of the Gila, and it will sufficiently explain the difficulty of obtaining supplies of every description in New Mexico—a country which heretofore has produced barely sufficient for its own population.

I beg to refer you, for further information on the subject of the expeditions against the Indians, to the reports of the officers in command; from these some idea can be obtained of the services of the quartermaster's department in supplying the troops.

The valley of the Rio Grande, or that part of it which may be considered as available in supplying the wants of the troops in New Mexico, extends from Taos, a point 75 miles north of Santa Fe, to a point about 50 miles south of El Paso. The distance between these two points may be safely estimated at about 500 miles. The width of the valley varies from 300 yards to two miles; I allude to the cultivable portion of it. Throughout the whole extent of the valley, irrigation is indispensable for the production of crops of any kind of grain; and from Taos to Socorro, (a point on the Rio Grande about 150 miles south of Santa Fe,) little or no addition to the irrigable land can be made. The supply of forage, therefore, is at its maximum, unless some increase may be obtained by improved agricul-

tural methods. Below Socorro, on both sides of the river, (with the exception of about 80 miles, where the river runs through a deep fissure or cañon,) the bottoms afford a considerable quantity of fine land, which can be subjected to cultivation, particularly from Doña Ana to within six miles of El Paso, a distance of about 60 miles. Should a post ever be established on the Gila, this region must be of importance, as it will, in all probability, lie near, or immediately on, the road which must lead from the valley of the Rio Grande to the head-waters of the first-named river. Nearly all of this land, however, is so much exposed to the Indians, that, until means have been taken to protect the settler, little can be hoped for in the way of an increased supply.

Should it then be determined to increase the mounted force in New Mexico, or even to retain it at its present strength, the limited supply must ever cause great expense in supplying the troops with forage.

The remedy for this will, I think, be the establishment of posts in the heart of the Indian country, at such points that supplies can be raised in the vicinity on government farms—a plan which has already been tried at Council Bluffs and at Fort Leavenworth. Settlers would doubtless soon follow the troops, and thus, after a few years, the supply would be equal to the demand. I beg leave to refer you to my communication on this subject of the 31st of January last, a copy of which is hereto annexed, (marked A.)

There is little doubt that such points exist where posts might be advantageously established for the control of the Indians, and where, at the same time, timber (a matter of primary importance) could be obtained for building. On this subject, I beg to refer you to the report of Captain Bowman, regimental quartermaster, third infantry, hereto annexed, (marked B.)

Long forage could no doubt also be obtained from the river bottoms; and, the opportunities for grazing the animals being much greater than on the river, I have no doubt but that the expense would be reduced. I fully concur with Captain Bowman in the suggestion of arming the now defenceless inhabitants of New Mexico, and have no doubt that, with the means above indicated, New Mexico could be protected from the savages who have laid it waste, and whose incursions have been carried on for one hundred and fifty years, as shown by official records in the office of the secretary of state at Santa Fe.

The method here proposed will also assist in restraining the Indians of our territory from their incursions into the territory of Mexico—a matter which, no doubt, will soon attract the attention of those in authority, and which will necessarily involve a heavy expense.

In regard to the general resources of New Mexico, little can be said with certainty. The country was once celebrated for its flocks of sheep and herds of cattle. These have nearly all disappeared, from the constant forays of the Indians. Mules and horses, once a considerable production of this country, are now scarce, few or none being bred, from the same cause. Were adequate protection afforded, their production would revive.

From Albuquerque south, the country is highly adapted to the cultivation of grain, fruit, and vegetables. Coal and iron abound in some parts in New Mexico; also, copper, tin, silver, and gold. The country must

ever be of importance, from the vicinity to the tribes of Indians which surround it, and whose incursions into Mexico will have to be restrained. Shut in as these tribes are by our boundaries on the east and west, as well as by the boundaries of Mexico—surrounding entirely a country with whose inhabitants they have been so long at feud, and whose protection has been guarantied by our late treaty stipulations with Mexico—this territory must ever be regarded with a degree of interest which would never have been inspired by its capacities alone.

I am, sir, very respectfully, your obedient servant,

TH. L. BRENT,

Captain and Assistant Quartermaster, U. S. A.

Brevet Major General T. S. JESUP,

Quartermaster General, Washington, D. C.

(A.)

OFFICE OF THE CHIEF ASSISTANT QUARTERMASTER,

Ninth Mil. Dep., Santa Fe, N. Mex., Jan. 31, 1850.

GENERAL: Should it be deemed necessary for the War Department to send out more troops to the Territory of New Mexico, I am induced to believe, from a conversation with Colonel Munroe, commanding the ninth military department, that at least four points will be selected beyond the settlements on the east and west of the valley of the Rio del Norte, and on the edge or in the heart of the ranges of the tribes of hostile Indians who surround this country.

The expedition made to the Navajo country during the past summer by Lieutenant Colonel Washington, then commanding in this department, has established the existence of much fertile (soil) land west of the chain of mountains which separate the waters of the Del Norte from those of the Colorado of the West; and posts established west of the mountain chain, on some of the tributaries of the Colorado, will most effectually keep in check the Navajos and Eutaws. It is my opinion that mounted troops could be foraged much more readily and cheaply than in the valley of the Rio Grande, after the first year, by establishing posts in the Indian country. The Navajo Indians raise large quantities of corn and wheat; and the country on the western slope of the mountains is well timbered, and resembles, in all its features and productions, our middle States. Almost the same features characterize the country on the eastern slope of the mountains which separate the Rio del Norte from its tributary, the Pecos. The Pecos rises in the mountain chain east of Taos and Santa Fe, and drains the eastern slope of a range of mountains at least five hundred miles long. The southern and middle portions of this country are finely timbered with pine, oak, black and white walnut, and locust. The grass is abundant, the country well watered, and the soil is represented as remarkably fertile. This region is inhabited by the eastern Apaches, (generally called the White Mountain Apaches,) and also bounds the northern and western limits of the Comanches. This information is obtained from Major Steen and Lieutenant F. J. Thomas,

third artillery, who made an excursion against the Apaches who inhabit this country during the last summer.

Should Colonel Munroe be enabled to carry out his present views, it will be necessary to provide buildings for the troops, stables for the horses, and storehouses for the supplies at these points. For this purpose, a complete supply of tools and materials should be sent out as early as possible this spring. Nothing can be obtained here, and it will be necessary that the supplies should be as complete as possible—depending, of course, in quantity and quality, on the kind of post to be established. My own opinion is, that, should these posts be established, they will be stations at least twenty or thirty years, and probably much longer. I have not included above the posts which must be established on the Gila and in the vicinity of El Paso, as it is supposed, from information received from Captain A. W. Bowman, acting assistant quartermaster at El Paso, that sufficient supplies are in depot at that point for those posts.

I am, general, very respectfully, your obedient servant,

THOS. L. BRENT,

Captain and Assistant Quartermaster.

Major General TH. S. JESUP,

Quartermaster General U. S. A., Washington city, D. C.

(B.)

REGIMENTAL QUARTERMASTER'S OFFICE, THIRD INFANTRY,
Passo del Norte, Texas, April 21, 1850.

CAPTAIN: The subjects mentioned in your letter of March 12 have received my serious consideration.

Owing to the entire ignorance of the views of my superiors on these points, I feel a great delicacy in advancing my opinions. Believing them to be well founded, I trust them for your consideration.

First, as to the location of posts, we well know the points which are habitually occupied by the families and herds of the Indians who infest this portion of the Territory. We also know by experience that it is almost, if not entirely, impossible to pursue successfully their marauding parties; instances of failure could be mentioned, but it is unnecessary, as you are doubtless well aware of the facts. Our easiest and most practicable mode of reducing, is to establish ourselves within reach of their haunts, which are in the neighborhood of the copper mines and in the Sacramento and Guadalupe ranges of mountains. The copper mines are about two hundred miles from this point, in a northwesterly direction, and easy of access with wagons, two commands having visited them since our arrival here—one from this post, under Major Richardson, 3d infantry, and the other under Major Steen, first dragoons, commanding at Doña Ana. The Sacramento range, or rather that point occupied by the Indians, is about two hundred miles north of east from this place, and is also accessible with wagons as far as the mountains. At both these points, abundance of lumber can be obtained with but little labor. With those two posts, and one in this vicinity, and the post at Doña Ana, all

well garrisoned with troops, mounted, I would consider the Indians as entirely within our control, so far as protecting our own settlements is concerned; but when we undertake to protect our neighbors from their incursions, the matter becomes more difficult. They have, for the past twenty years or more, almost entirely depended on their depredations in Mexico for their supply of meat, as their hunting-grounds do not yield a sufficient supply. From whence can they obtain it? As they say themselves, "We must steal from somebody; and if you (meaning the whites) will not permit us to rob the Mexicans, we must steal from you, or fight you." It then becomes a question whether we shall exterminate them or supply them with beef and corn until they can be taught to supply themselves. Extermination would be the easiest accomplished, but the latter is more in accordance with the philanthropical notions of the public. As to the humanity of the two modes, there is in my mind no doubt. We are, in either event, bound to have hostilities with them, which will of course involve loss of life. As their nature is such that they will not cease, as long as they possess the ability, to murder and commit depredations on travellers, and in the territory of Mexico, the quickest mode of reducing them to a powerless state is, in my opinion, the most humane. To do this will require a much stronger force than is now in the Territory. The posts on the Gila (copper mines) and in the Sacramento should not be garrisoned with less than five or six full companies. At this post and Doña Ana, three companies each will be sufficient for local protection and escorts. A post at any point in this pass, which is about six miles long, will have the effect of closing it against the Indians. As to the particular point for its location, I prefer not to express an opinion.

From the best information I have been able to obtain, the Apaches number from 2,000 to 2,600 warriors. Of these, about 1,100 live in the copper-mine country; the remainder in the Sacramento range, and scattered through the mountains down as far as Presido del Norte: (the latter includes the Mescaleros.) To render the road safe between this and San Antonio will require the establishment of at least three posts. As that is in the eighth department, I say nothing further in reference to them.

I have written to Chihuahua to obtain from the Secretary of War's office official information relative to the Indians on this frontier. You are doubtless aware that the Spanish as well as the Mexican government were in the habit of issuing rations to all the Indians on this frontier, and by that means obtained a very exact census of their numbers. I will forward to the Quartermaster General whatever information of value I may obtain on the subject. Before I drop the subject of defences, I will advance an idea which, if it can be carried into effect, must be of great benefit to the Territory, and consequently to government: that is, the issue of arms to the inhabitants. There must be now in the arsenals thousands of sands of flint-lock muskets and rifles, which in all probability, will never be required for the use of our troops. The great majority of the population of this country are too poor to provide themselves with even the cheapest kind of gun, and are consequently unarmed, and entirely at the mercy of the Indians, whenever they venture beyond the protection of their enclosures.

Should our government adopt the policy of arming all settlers in this Territory, it would in a few years have the effect of filling up, to a large extent, that portion of the country which is now, and otherwise will remain, unoccupied, and, in the event of more open hostilities, will be of great service for their protection.

The resources of this country are at present very limited, and consequently expensive. The amount of corn produced in this valley is very little more than is necessary for the supply of its population. In fact, in previous years, notwithstanding the fertility of the soil, they have been forced to send to Carizal and Chihuahua for breadstuffs, and will no doubt have to do so this year before the crop is ready for harvest.

Hay is an article not produced; but I feel confident I will be able to cut wild grass in the river bottoms sufficient for the use of my stables at much less than the price paid for grama grass, which is the only substitute I have been able to obtain. Every effort has been made on my part to increase the amount of the corn crop at the next harvest; and, unless my expectations are deceived, the quartermaster at this post will be able to obtain all he will require for the ensuing year at perhaps less than half the present price.

On my arrival here, I was obliged to let out a contract for fuel. Only one bid was made, and that at \$12 per cord. That has expired; and I am now supplying myself, without any expense other than the wear and tear of wagons, and harness, and axes. I haul twelve miles.

Of transportation, only sufficient has been retained for the use of this and the post of San Elizario, and a number of extra wagons—it being, in my opinion, much more economical to employ the transportation of the country, even at the enormous rates charged, when the removal of a large amount of stores is necessary, than to keep up a large train for this purpose. At this point, carts and wagons can be hired in sufficient number for any purpose that may be required.

A contract has been made and forwarded to the commanding officer of the department for his approval, for the supply of this post, San Elizario, and Doña Ana, with flour for one year. The price, although high compared with that of the States, is less than half the cost of transportation from New Orleans here; the price is eleven cents per pound. I have made a report on the subject of commissary's supplies to the depot commissary at San Antonio, a copy of which, I presume, has been forwarded to the Commissary General's office.

Wheat is an article little cultivated; and, although the amount sown last fall was much greater than formerly, I have but little expectation of any important increase in the amount produced, judging by the appearance of the fields I have seen. Should the grain fail, there will still be an advantage gained, as the straw will make an excellent substitute for hay.

Respectfully, your obedient servant,

A. W. BOWMAN,

Brevet Captain 3d Infantry, R. Q. M.

Captain T. L. BRENT,

Assistant Quartermaster U. S. A.

TAOS, NEW MEXICO, *September 10, 1849.*

CAPTAIN: In obedience to your instructions of the 8th instant, I have the honor to submit the following report upon the state of the quartermaster's department in this valley. I would request that this may accompany your general report, as it will explain some circumstances relating to my duties during the past year which I am desirous of bringing to the knowledge of the department.

1. Taos is a valley lying on the east side of the Del Norte, about thirty miles in length, and from three to ten in breadth. Along its whole length, the river runs through a deep "cañon," or fissure of perpendicular rock, impracticable even for horses and mules, except in two or three places, where the passage is effected with great difficulty and danger. On the other side, this valley is bounded by lofty mountains, which, at the Arroyo Hondo on the north, and at the Sienguilla on the south, close in upon the river, and nearly isolate it from the other posts of New Mexico. From these mountains numerous creeks put out, carrying their waters to the Del Norte; and on these streams, along the base of the hills, all the products of the country are raised by artificial irrigation. All, or nearly all, the water being expended already for this purpose, it will seem that the agriculture of the valley is capable of but little extension. The growth of every species of grain is stunted by the cold of the climate, caused by the elevation and locality; and frequently the entire crop of corn is cut off by the early frosts.

2. The productions of the valley are principally *wheat* and *corn*. Also, peas, beans, onions, and cabbages are raised in small quantities. The amount of wheat sold and manufactured into whiskey of a most deleterious nature is about 10,000 bushels, in favorable years. This amount being drawn from the necessities of consumption, seems to me to call for legislative action to stop the pernicious traffic. The quantity of corn annually produced for sale, when the crop is good, may be estimated at 10,000 bushels. This amount is required for the supply of one company of dragoons, with its necessary transportation. There is no grazing worthy of the name, and hay is unknown. The necessary food for animals is eked out with corn fodder, wheat straw, &c.; and, from the largeness of the demand in proportion to the supply, the price must necessarily be high.

3. The roads in this immediate valley are cut up with arroyos and ditches, and, although I am obliged to use wagons in hauling forage and wood, yet the wear and breakage are very great. The roads to and from this place over the mountains may be described as follows: The direct road to Santa Fe, seventy-five miles, runs north and south along the Del Norte, or within a few miles of it. At fifteen miles from Taos begins the ascent of the mountain, which rises precipitously to a great elevation and is crossed in a distance of ten miles. It is altogether impracticable at present for carriages, although, with immense labor and considerable breakages, Captain Judd, 3d artillery, succeeded in forcing over its rugged sides some pieces of artillery. From La Joya to Santa Fe, the road, although bad, is practicable for wagons. At La Joya comes in the wagon-road from Taos, which, to accomplish a distance of thirty-five miles, makes a circuit of nearly one hundred, and is exceedingly difficult, not more than

half loads being carried when transportation is attempted by this road. A small appropriation would enable the department to blast a good and direct road along the face of the mountain where it abuts on the river, and seriously advantage the interests of the country.

The roads to Las Vegas, El Moro, El Rayado, &c., on the other side of the mountains, are mere bridle-trails along the beds of mountain torrents. A road leads from this place to the Ocate just practicable for empty wagons, and there joins the Bent's Fort road to the States. Another trail runs to the north, crossing the spurs between the Arroyo Hondo and the Rio Colorado, (a small village, twenty-five miles from Taos, and the most northerly settlement in the valley of the Del Norte,) and along the valley of the river to the pass of the mountains called "La Larga de Vista," to Bent's Fort.

From this explanation, it will appear that, from whatever point you approach Taos, you find the transportation laborious and difficult.

4. The Indian tribes which infest the valley are a branch of the main Eutaw tribe numbering about two hundred and fifty warriors, and a band of Apaches about equal in number. Both these predatory bands are frequently reinforced by large war parties from the main tribes, whenever they are engaged in hostilities with the inhabitants, which are almost continual. These Indians, during the summer, live in the mountains by which we are surrounded, falling upon the valley by night, and driving off stock, almost with impunity, and by their superior knowledge of the passes generally eluding pursuit. If at peace, they winter in the upper valley of the Del Norte and in the country about Albiquin; and in this season they may be easily overtaken and chastised, if pursued. During the past winter, several expeditions were made. In such forays, it becomes necessary to carry forage upon pack mules; and a heavy expense, both in money and the loss of animals, is imposed upon the department.

Having presented, in the foregoing remarks, a general view of the valley, I will now give a succinct account of the transactions of the department during the past, and its prospects for the coming year. I came to this post in October, 1848, in command of company C, 1st dragoons--performing also the duties of acting assistant quartermaster, having no other officer with me. I was at once plunged into arduous service with my company. My means of transportation were limited. A large portion of the forage of the valley had been destroyed by the fall rains. The volunteers had left such a reputation for dishonesty that I could scarcely hire even a house for the public service, without the security of some American resident for the payment of the rent; and afterwards, during the winter, distant expeditions were started suddenly, requiring guides and large trains of pack mules. These circumstances combined to render the expenditures of the department greater during the past year than would otherwise have been necessary.

The cost of forage being so great, I have found it more economical to hire most of my pack mules as called for by circumstances; but, as no private citizen keeps on hand mules in good enough order for military expeditions, I shall be obliged to organize, this winter, a sufficient train for this service, notwithstanding the expense.

The rent of houses I was able to reduce as soon as the people found I

made punctual payments, and my expenditures under that head are now quite reasonable. I have been obliged from necessity, and from my contracts, to expend some lumber and glass in repairing windows, absolutely necessary for the health and comfort of the troops; but the expenditure on this account has been trifling.

I have had on hand, during the past year, an average of 5 or 6 (six-mule) teams, which have been employed in hauling wood and forage for the post, and have occasionally been packed on expeditions against the Indians. I shall be obliged to increase this amount a little for the coming winter.

I am in hopes of laying in my supply of forage for the ensuing year at the price of \$1 per bushel for corn, and \$1 per 100 lbs. for fodder, which is much less than paid during the last year, although I am not yet certain of succeeding in the reduction. A single frost during the present month will ruin the greater portion of the corn crop, and of course raise the price of the article.

The importance of this post, as regards the quartermaster's department, it must be remarked, is and must be greater than that of an ordinary post of one or two companies. Large expeditions rendezvous here for excursions against the Indians. Parties for California pass here, requiring large pack-trains, repairs, &c., &c. This requires the machinery of the department to be on a somewhat larger scale than would be necessary under other circumstances. Everything, however, has been retrenched by me, as far as compatible with the interest and efficiency of the service.

The amount of quartermaster's stores kept on hand is barely sufficient for the daily wants of the post, being drawn from the main depot at Santa Fe, from month to month, as required, and are not worthy of a special enumeration in a report of this nature.

My provisions are transported from the entrepot at La Joya by private contract, and at a less expense than would be incurred by the use of public trains. Also, the provisions required at the different outposts supplied from this depot have generally been sent in the same manner.

Believing that the views and explanations above presented will give a clear insight into the state of the department in this valley, I have the honor to remain your obedient servant,

J. H. WHITTLESEY,

First Lieutenant 1st Dragoons, A. A. Q. M.

Captain THOS. L. BRENT,

*A. Q. M. and Chief Q. M. in New Mexico,
Santa Fe, New Mexico.*

The probable amount of corn that can be bought this year, and the distance of each place from Santa Fe.

[E. is east bank of the river, W. west.]

Names of towns.	Bank.	Miles from Santa Fe.	Number of bushels.	Remarks.
Don Ana.....	E.	300	7,500	Garrison below Jornada del Muerto.
San Pedro.....	E.	165	750	
Luis Lopez.....	W.	160	800	
Bosquecito.....	E.	160	500	
Socorro.....	W.	150	800	First military post north of Jornada.
Parida.....	E.	140	500	
Lienitar.....	W.	140	1,250	
Sabino.....	E.	140	1,000	
Polvidera.....	W.	135	1,175	
La Joyita.....	E.	130	375	
La Joya.....	E.	118	500	
Sabinal.....	W.	105	1,250	
Belen.....	W.	100	2,000	
Tomé.....	E.	100	1,250	
Las Lunas.....	W.	90	1,000	
Peraltas.....	E.	90	875	
Ysleta.....	W.	85	500	
Padilla.....	E.	85	250	
Pajarito.....	W.	80	250	
Albuquerque.....	E.	75	5,000	Garrisoned post.
Sandilla.....	E.	60	750	
Bernalilla.....	E.	55	775	
Algodones.....	E.	40	1,250	
San Felipe.....	W.	35	375	
Santa Domingo.....	E.	29	750	
Peña Blanca.....	E.	25	1,250	
Chile.....	W.	25	250	
Cubera.....	W.	30	500	
Cañada.....	E.	15	750	North of Santa, on Taos road.
San Juan.....	E.	25	500	.....do.....do
Plaza de S. Antonio.....	W.	25	750	
Albiqui and vicinity.....	W.	60	1,500	Military post, north w't fm Santa Fe.
Ojo Caliente.....	.....	60	1,000	
Santa Fe, Tezuque Lopez Rancho.....	.....	.....	2,000	Military post, headquarters ninth military department.
Galisteo.....	.....	25	375	Southeast from Santa Fe.
Mansana.....	.....	45	375	.....do.....do
San Antonito.....	.....	40	250	.....do.....do
San Miguel.....	.....	40	1,250	
Puertacitos.....	.....	60	750	
La Cuesta.....	.....	65	750	
Tecalote.....	.....	65	5,000	
Las Vegas.....	.....	75	3,750	Mil'y post on road to Ft. Leavenw'th.
Tecalote Arriba.....	.....	65	750	
Anton Chico.....	.....	70	750	
La Valles de Gallinas.....	.....	75	500	
Rio Arriba.....	.....	35	1,750	
Taos and vicinity.....	.....	75	15,000	Military post, north from Santa Fe.
Savoyelta and vicinity.....	.....	120	1,250	Military post, southwest from Santa Fe, on west side of Rio Grande.
Rayada.....	.....	125	1,000	On the Bent's ft. rd. to Leavenworth.
El Paso and vicinity.....	.....	350	5,000	A large portion of this corn will be brought from Chihuahua.
Total.....	.....	.....	78,425	

WASHINGTON CITY, October 16, 1850.

THOS. L. BRENT,
Captain and A. Q. M. U. S. A.

D.

Report of Captain S. G. French, United States army, descriptive of the route from San Antonio to El Paso.

ASSISTANT QUARTERMASTER'S OFFICE,
San Antonio, Texas, December 26, 1849.

GENERAL: The accompanying is a copy of a report in relation to the road opened between this place and El Paso del Norte, made in accordance with instructions received from the office of the chief assistant quartermaster of the 8th military department, dated May 30, 1849. Those instructions required me "to make a sketch of the route over which my trains passed," and a "copy of such sketch and report for the office of the Quartermaster General."

On leaving San Antonio, I could not procure the necessary instruments to make observations for a topographical sketch with any degree of exactness. This, and a knowledge of the fact that the engineers were engaged in making surveys of the country and a map of the route determined with great accuracy, will, I hope, be found a sufficient excuse for my not presenting you with one that could not be otherwise than imperfect and inaccurate.

Respectfully, your obedient servant,

S. G. FRENCH,
Captain and Assistant Quartermaster.

Major General T. S. JESUP,
Quartermaster General U. S. A., Washington.

REPORT.

In February last, Lieutenant Whiting, of the Engineers, and Lieutenant W. F. Smith, Topographical Engineers, left San Antonio for Paso del Norte, to explore the country, and ascertain if it were possible to open a road for military and commercial purposes between the two places. During their absence, the trains to transport the government stores and the property of a battalion of the 3d infantry to El Paso were got in readiness, and ordered to proceed by the way of Fredericksburg; but, when on the eve of starting, the return of the engineers, and their favorable report, induced the general commanding to change the route, and directions were given for the expedition to proceed by way of the military stations on the Leona.

Late in May, the trains were started, and ordered to encamp on the Leona, and there to await the arrival of the troops, under orders to move on the 1st of June. The day fixed for their departure proved exceedingly unfavorable; the rain fell in torrents, which, added to those that had fallen a few days previous, rendered the roads extremely bad. The command, however, moved on, and encamped for the night on the Leon creek.

The following day, a violent thunder-storm arose early in the morning,

and the command remained in camp. On the morning of the 3d, they moved to the San Lucas springs; and, before the tents were pitched, again the rains began to fall. The prairies were now inundated—the roads so bad that it was with difficulty the company teams, overloaded as they were, could move.

On the morning of the 4th, I left the troops encamped for the day, and moved on to Castroville, 2,542 miles from San Antonio. The road from San Antonio to Castroville runs through a generally level prairie, covered with a luxuriant growth of grass. The soil is good, and the country well adapted to cultivation and grazing. The town is situated on the west bank of the Medina river, and contains about 500 inhabitants, mostly German emigrants.

The place presents but few signs of improvement, and idleness and poverty are more visible than industry and wealth; houses are falling to decay, and the rich lands lie uncultivated.

The Medina is here a clear, bold, rapid stream, about 30 yards wide, flowing between banks that rise near fifty feet in height on either side. It empties into the San Antonio river about 12 miles below the town of San Antonio. From Castroville the road leads over some gentle hills, and thence through a tract of land pretty timbered, until it opens out into what is here known as a "hog-wallow" prairie. We found the road, owing to the rains, as bad as can well be imagined.

Beyond this prairie is a slightly elevated ridge, from the top of which, spread out before him, the traveller sees the beautiful valleys of the Quihi and the Hondo, pent in by the blue hills in the distance. The valley of the Quihi is sparsely covered with timber, principally mezquite and oak.

The land is exceedingly rich, and affords at all seasons excellent grazing. In midsummer the stream ceases to flow, but the water at intervals collects in never failing pools. The village of Quihi is a German settlement, being a branch of the main one at Castroville, and consists of only a few miserably rude huts; distance from Castroville, 10 miles. Six miles further on the road is the town of Vandenburg, a third settlement made by the same colony; it consists of some 21 log huts. The country around is beautiful and productive, and nothing but industry is required to make it teem with all the productions of agriculture.

The nearest water is the Hondo, four miles distant. On reaching it, however, we found it but the dry bed of the river, with occasional ponds of water. Rising from the Hondo, the road stretches over a prairie country to the Seco, crossing a "hog-wallow" that we found nearly impassable.

The Seco, at this season, like the two previous streams, afforded no running water, notwithstanding the late rains. Two miles below the crossing, on the left bank, there is a settlement of Germans at Dennis. Here, as at Vandenburg, great inconvenience arises from the want of water; and, while we were encamped on the banks, the people had to drive all their cattle two miles to a pond found in the bed of the stream. This has been selected as a site for a military post; and on our return we found stationed here two companies—one of dragoons, and one of Infantry. The distance from Vandenburg, 12.78 miles; distance from San Antonio, 55.37 miles.

From the Seco the country is undulating in appearance for several miles, and then opens out into a level prairie, which continues to Rancho creek; distance from the Seco, 8.38 miles. Four miles further is the Sabinal, a clear, cool, delightful running stream, with banks bordered with large trees suitable for building purposes.

Leaving the Sabinal, the country is more rolling and diversified; the growth of small mezquite bushes begin to take the place of the open prairies. With but little change, the road continues its westerly course across the Comanche creek, and thence to the Rio Frio, 13.87 miles. We found in the Rio Frio no running water: its banks are high, presenting in places a wall of limestone of considerable height; and evidences of its being at times swollen to a stream of large size were visible. Its bed is covered with well-attributed limestone, and its edges are bordered in many places with oaks of large growth. Thus far the road over which we had travelled is known as Wool's, or the Presidio road, and extends to the Rio Grande.

But at the crossing of the Rio Frio the road to El Paso leaves it, and commences its course over the hitherto untrodden prairie. Bearing a more northerly course, it strikes the head-waters of the Leona above the site of the military post.

The Leona, a clear, cool, and beautiful stream, has its source in this neighborhood, and forms in the course of a few miles a creek some fifty feet wide, flowing through a dense forest on either side a quarter of a mile in width. The lands on this stream will vie in fertility with any portion of Texas; and the abundance of timber scattered over the whole extent to the Neuces adds much to its value.

No part of the State offers greater inducements to the agriculturist; and, as a pastoral or grazing country, it is unrivalled. Indeed, the same may be said of the whole extent of country from San Antonio to the Neuces.

The post is located on the left bank, above the Presidio crossing, near a rocky conical hill or mound. It is a beautiful site for a military station, shaded as it is from the scorching rays of the summer sun by a dense foliage, and the forest that renders it cool in summer shielding it from "northers" in winter.

From here Lieutenant Colonel J. E. Johnston and Lieutenant W. F. Smith, Topographical Engineers, and party, with a small train of wagons, proceeded in advance, to commence their explorations of the country and the opening of a road.

The recruits having joined the battalion, the whole expedition moved to the Neuces on the 19th. At the point where the road strikes the river it flows through a sandy bottom land, near a half mile in width, covered with large trees. We found the Neuces at that season a clear stream, running over a bed of white stones and pebbles, and affording a volume of water forty feet in width and about one and a half in depth, though it shows signs of having been at times a large river, forcing in its course far above its present bed large quantities of rocks, rounded by the action of the current.

The grazing on the left bank is good; distance from the Leona, nine miles. Below the crossing a short distance, bituminous coal is said to be found in great abundance. Passing the Neuces, the general feature of the

country begins to change, and it becomes slightly hilly; at regular intervals, the hills rise on the left to considerable elevation. The rich, loamy soil is found only in the valleys; limestone rocks make their appearance on the surface, and the hills are stony and barren. This continues about ten miles to Turkey creek. The valley at the head of this stream is of large extent and fertile, and covered with a large growth of mezquite trees: the banks of the creek are bordered with post and live oak. The grazing is fine and abundant.

At this place, owing to the heavy rains, the command was stopped nine days. The road heads the main spring from which the creek rises; though on our return, water flowed from a small lake a little higher up. After leaving the valley of Turkey creek, the country becomes more rolling and the trees more scarce, giving it the features of a more open country. A march of about thirteen miles brought us to the bed of a creek, with rain-water collected in large ponds. Three miles further on, the road crosses Eln creek. Below the crossing, which in summer is dry, the water runs from a spring, and forms a small creek that flows over a rocky bottom. It doubtlessly derives its name from the trees that border its shore, though post oak and hackberry are the principal ones that grow near its source.

The next stream of note is the Los Moros, which takes its rise below the road. Its waters gushing out from the springs, form at once a large creek: trees line its banks as far as the eye can reach. To the north rises a conical hill that may be seen many miles distant, and is known as "Los Moros" mound.

Formerly this stream was much resorted to by the Indians, and large, well-beaten trails are now seen following down its course. From the Los Moros to the Piedra Pinta, a distance of over seven miles, the country continues of the same general appearance. This stream is about ten feet wide, near three deep, and runs over a bed of limestone. The crossing is bad, the banks being very boggy.

Leaving the Piedras Pintas, the country is open, with only here and there a few mezquite trees. The approach to the Rio Grande is marked by the appearance of distant mountains on the left, now distinctly visible from the rising ground.

The next water is the Zoquete, a small stream that flows through a bed of rushes. The surrounding country is an open prairie; the soil good and covered with fine grass. At the point where the road crosses this creek it branches, one branch bearing the name of Maverick's creek. The crossing is not good, the soil being miry.

About three miles in advance the road crosses Arroyo Pedro, a creek of clear water coursing along the wide, stony bed of a stream which during the rainy season is swollen to the dimensions of a river. The crossing is good. Large oaks are found in groves on its shores.

Beyond this Arroyo the soil becomes stony and barren, and covered with cactus and dwarf chaparral, as far as the San Felipe. The road crosses this stream a little way below its headwaters.

To the north of the road, and half a mile distant, there is a beautiful spring of water, fifty feet in diameter at the surface, the sides of which incline towards a centre like an inverted cone, and then sinking in a cyl-

indrical form to the depth of twenty-eight feet, through a soil of hard clay, afford a passage for the water to rise.

The water comes to the surface with slight ebullition, and flows off in a volume that would fill a cylinder two feet in diameter. This spring is the source of the San Felipe: as it flows on, the volume of its waters is increased by other large springs on either side, until it becomes a creek, where it empties into the Rio Grande, eight miles below the crossing, some thirty feet wide and several feet deep. Near its junction with the Rio Grande its banks are shaded with large groves of pecan, maple, elm, and mulberry trees. This is the last of these small, clear streams, flowing through fertile valleys, with banks admitting easy access to their waters. At this place Major Van Horne with the command started in advance on the 8th of July, leaving the supply trains, an escort. We moved on the 22d, and thus continued the march to El Paso.

Eleven miles distant is the San Pedro river, beyond which and close by, on the north, is the great table formation. These features of the country may tend ere long to point out the San Felipe as a site for a frontier post.

The banks of the Rio Grande below the mouth of the creek for many miles are nearly or quite inaccessible.

From the San Felipe to the San Pedro the country becomes more elevated, inclining to a high plain, far below which, in a deep, rugged cañon, the waters of the latter find an outlet into the Rio Grande. The descent to the river is made through crooked ravines that required much labor to make them passable. Viewed from this point the San Pedro is a stream about sixty yards wide, running over a level bed of solid limestone rock. This is perhaps the only point at which it is possible to gain the opposite bank for several miles either up or down the river.

When returning we found that during our absence the autumnal rains had caused a great freshet and the usually shallow waters had risen nearly twenty feet.

From the table-land above, on either side, the country presents a dreary aspect, and no traces of the river can be seen in the depth below. About two miles beyond, water is found in a ravine, and near by is the only encamping ground in the vicinity. From some Indian paintings on the rocks it has been called the "Painted Caves." From here the road continues up the ravine to the open country, and the first water we found beyond was at some springs sunk in the open plain at and near Pallos Blancos. In July but a scanty supply of water was found here for so many animals, but on our return in November we found it a running stream. The grazing is good, but no wood whatever can be procured close by. From Pallos Blancos the road gradually ascends for a short distance, and then runs apparently parallel to the river, with a succession of hills on the left.

About eight miles further on, the road passes through a gorge of the mountains, and then stretches out over some high table-land for several miles, until it commences winding around the base of the irregular mountains, now rising and then descending as it approaches the river again. For five or six miles it is very rocky and rough, and during the whole distance the country is a constant succession of hills on hills, des-

titute of grass and wood, and giving support only to the saw-leaf Palmetto.

It is a miserably rough, broken and barren region, avoided alike by every living thing. By winding around the base of the mountains, a descent is made to the river.

The San Pedro, from its source to this point, flows down a valley formed by mountains on either side, and which are not unlike, in appearance, those on the banks of the Hudson.

The valley varies from a quarter to one and a half mile in width, up which the road runs, crossing and re-crossing the stream many times, and often following up its bed over a continuous mass of rounded and attritioned rock, varying from an inch to two feet in diameter.

In many places the road over which we had passed, we found on our return, had been at least twenty feet under water. All the way up the valley, at intervals, the road is very rough, particularly at some of the crossings.

The grazing is poor until you reach the head of the valley, where it is excellent, the gentle slopes of the mountain-sides being covered with gramma grass. It is a place resorted to by the Indians, and numerous lodges are found by the water's edge.

At the point where the road leaves this stream the valley is divided; following the most westerly one, a distance of nine miles brings us to the table-lands that extend between the waters of the San Pedro and Pecos rivers.

It is of limestone formation, with horizontal strata, and the general appearance is that of one vast, level and unbroken plain. But such is not the case; valleys extend out from the streams: from these others branch off from the right and left, ramifying the country in every direction, and near the Pecos these valleys head in innumerable chasms and cañons, traversing the plain in every course, with rocky sides so high and steep as to form impassable barriers. In many places, and particularly about Howard's springs, the valleys, with all these ramifications, seem to have quietly sunk down from the general level, the same strata of stone marking a precise level on the different hill-sides for miles. But these apparent hills are but the natural slopes of earth from the valleys to the generally level lands above.

The nearest water after leaving the San Pedro is found at Howard's springs, forty-one and a quarter miles distant. The road is good, and the grass in the valleys very fine, consisting of gramma and fine mezquite. The springs, from the large basin they form, afford a small stream of running water in summer, which, after flowing a short distance, sinks into the ground. Wood in sufficient quantities for fuel is found near the springs. It is a place much resorted to by the Indians.

From these springs to Live Oak creek, the next reliable water, is a journey of thirty-two miles; though perhaps, after rains, water may be found in pools in the rocky bottoms of ravines near the road. When approaching the Pecos, the road leads down a steep hill into a valley, along which it continues several miles to the valley of Live Oak creek. After crossing this stream the route is down its right bank to the valley of the Pecos, and thence up it to the crossing or ferry.

For the distance of near forty miles the route lies up the east side or bank of the river. A few miles below the ferry the valley of the Pecos disappears, and the mountains on either side approach each other very closely. Proceeding up they gradually widen out, forming a level valley from one to three miles in width, and a little above where the road leaves the valley they stretch to the left over the plain in a broken irregular line.

The Pecos is a remarkable stream—narrow and deep, extremely crooked in its course, and rapid in its current. Its waters are turbid and bitter, and carry, in both mechanical mixture and chemical solution, more impurities than, perhaps, any other river in the south. Its banks are steep, and in a course of two hundred and forty miles there are but few places where an animal can approach them in safety for water. Not a tree or a bush marks its course, and one may stand on its banks and not know that the stream is near. The only inhabitants of its waters are catfish; and the antelope and wolf alone visit its dreary, silent, and desolate shores; it is avoided even by the Indians.

The grass on the lower part of the stream is good, but further up the salt marshes begin, and it becomes coarse. The average width of the river is about sixty feet, and its depth eight feet. A few miles above where the road leaves the river there is an Indian ford. Near thirty miles still further up is the "Horsehead" crossing, on the Fredericksburg route. Below this is the ford where the great Comanche war trails pass from the north down to the great bend of the Rio Grande, and thence into Mexico. Below this is Connelly's crossing. The road up the Pecos is good. The greatest difficulty is in watering the animals, rendering it a choice whether to do it by means of buckets, or by cutting away the banks, if the water be high, and letting it into the salt lakes near the shore.

Leaving the Pecos the road turns directly to the west up a wide valley or plain, with hills in broken ridges on both sides. As the distance increases the soil becomes more and more sterile, without grass, and yielding support to nothing but dwarf bushes, "Spanish bayonets," stunted cactus and artemisia. Continuing over a gently swelling hill another valley is entered, following which about six miles water is found in ponds, some of them quite deep, surrounded by a tall growth of rushes and cane. The water rises from a rocky bottom, and as it imperceptibly glides away, gives life and freshness to the coarse grass and cane. This water is distant from the Pecos about eighteen miles, and has been called Escondido creek. The grazing is not good, and wood for fuel is scarce.

Eight miles further on are the Escondido springs. The water gushes out from beneath a shelf of rocks, and flows some distance down the creek. The country around is rocky and barren, covered with chaparral and prickly-pear. The grazing is limited, and wood by no means plenty.

From Escondido to the Comanche springs the road is good; the hills now gradually disappear, and the country becomes open. The soil is light, and on being trodden up by our animals, was wafted by the strong wind over the prairie, covering the bushes and grass for miles. By the volumes of dust that arose, the trains could be descried at a great distance; and thus viewed, the clouds of dust that filled the air appeared like smoke from the prairies on fire. Fortunately, the wind blew directly across the road, otherwise the animals would have suffered very much.

The Comanche springs, situated as they are in the open plain, have long been a celebrated encamping place for the Indians. Here *four* roads may be said to cross at the same point: First, the "great" Comanche war paths leading into Mexico, marked by the bones of animals; second, Connelly's trail to Presidio del Norte; the route of emigrants from Fredericksburg to the Presidio, and the road from San Antonio to El Paso. The water rises from a number of springs and forms a stream of excellent water, perhaps twenty feet wide and two feet deep, which, after flowing some ten miles, disappears in a salt plain. The grazing is pretty good. The only wood for culinary purposes consists of dead chaparral and small mezquite bushes in the vicinity. The place is noted for the number of bones of horses and mules scattered around its waters.

From these springs to Presidio del Norte, the distance is estimated at 160 miles; thence to Chihuahua 150 miles. From here to El Paso del Norte it measures 279 miles. From El Paso to Chihuahua, the distance is estimated to be between 240 miles and 280 miles. These distances show the advantage of the road from here to Chihuahua, and large trains with emigrants have already passed over it: and as commerce is usually forced by enterprise and competition into the nearest and cheapest channels of communication, this may, in time, divert it from those over which it is now carried.

The next watering place on the route is the "Ojo de Leon." The water rises from out some springs thirty or forty feet in diameter, that sink to a great depth like large wells. The water rising to the surface flows from one spring to another, and finally, in the course of half a mile, sinks into the earth. Near the springs the ground is bare and covered with a finely crystallized salt, which seen at a distance, appears like snow. The odor of sulphur is perceptible about the springs. The grass is coarse; and no wood for fuel, except from the dead bushes, can be procured. From the Comanche springs to this place the country is sterile. Quitting "Ojo de Leon," the road still continues over a dreary and miserably barren country, without timber or grass, until it enters the valley of the Sierra Diablo. The aspect of the country now suddenly changes—mountains rise on the right and on the left—the limestone formation has generally disappeared, and the hills wear a sombre appearance, from the dark rocks of the primitive formations. The distance from the "Ojo de Leon" to the Limpia is near forty miles, and no water intervening can be relied on, though at certain seasons it may be found. At the point where the road strikes the Limpia it is a small stream, rising from its rocky bed, and after flowing a short distance disappears. The hills were here, in August, clothed in verdure as green as that of early spring, and the grass covering the mountains to their very summits gave them a pleasing appearance, rendering the country most beautiful to the eye. Wood at the encampment was very scarce.

Leaving this valley, the road enters "Wild Rose Pass." But few places can present a more lovely view than this little valley, surrounded, as it appears to be, by a wall of vertical rocks, rising a thousand feet in altitude, and which forms the sides of mountains, that rise still higher and overlook the deep valley from every point.

From here the road passes over a spur of the mountain and descends

on the other side, and, continuing up the bed of the stream several miles through a deep narrow cañon, leads to a more elevated plain, in which this little stream takes its rise. This cañon, in some places, is not more than two hundred yards in width. Columnar basaltic rocks that rise one behind the other, many feet in altitude, form its sides, and present a singular appearance.

The mountains of the Sierra Diablo do not form a single continuous ridge, but rise in irregular order, mountain on mountain and peak on peak, covering an immense extent of country, forming, innumerable, small shaded valleys, deep cañons, and ravines that wind in circuitous courses around their base.

The country viewed from the top of one of the highest mountains presents to the eye of the beholder, in every direction, hills in their pristine grandeur, as countless as the billows of the ocean. Far and wide these ten thousand single conical mountains rise, intersecting each other at the base, or higher up their sides, forming an insurmountable barrier that would have precluded the possibility of a passage beyond, had not some convulsion of nature occurred to have partly opened the pass and cañon through which the road runs.

The first encampment on the plain is called the "Painted camp." Gramma grass is abundant, and wood plenty for fuel.

The Limpia here, though near its source, affords more water than where it was first met, thirty miles below. A little distance up the stream there was growing a small field of corn, planted by the Indians, and on its banks were some "lodges" constructed of willow sticks, bent in the form of an arc, and interlaced at the top. From "Painted Camp" the road continues over the plain, and is remarkably good for a few miles.

For several leagues it runs through an almost continuous prairie dog town; and over the whole country they inhabit, the herbage is kept closely cropped by those little animals, and the fresh or new grass springing up, gives it the appearance of a bright lawn.

By the road-side, fourteen miles distant, beneath a large boulder of granite, water may be found, but it was unfit for use when we passed it, having been completely trodden up with mud by the animals of the advance trains. The first reliable water is Smith's run, twenty-six miles from the Limpia. The last six miles of the road is over ground covered with small angular fragments of rocks, rendering it very rough.

This creek is found in a ravine at the base of a high range of mountains on the right; and to reach it, the road turns off the direct course near two miles. The grazing is good, and wood is found in abundance.

These mountains on the right form a lofty and continuous ridge, presenting an extremely jagged and serrated crest. They are formed principally of rocks of igneous origin: near their tops, forests of pine are visible, and some logs, borne down by the mountain torrents, were discovered in the ravines.

Continuing along the base of these mountains, water is found again in some springs ten miles distant.

But from there to Eagle springs, a space of sixty miles, no certain or living water is found, although there are intermediate ponds; and Rain-water creek, twenty miles distant, is sometimes swollen to a stream of

considerable size. Between these points the country is mostly an elevated plain. The road leaving the mountains on the right, passes over to the range on the left. From the plain other chains of mountains rise, and, running towards the north in a parallel direction, terminate in the vast plain east of El Paso. Eagle springs are found in a ravine, formed by the spurs of the mountains. Although the precaution was taken to march the train in four divisions, each on consecutive days, yet water was not found sufficient for one-third of the animals; consequently they had to travel seventy miles without water. The water did not run, but merely oozed out of the ground, and was collected in numerous holes dug for that purpose.

During most of the year, perhaps more water might be found; and now, at all seasons there will be found, in the pits that were sunk, enough for ordinary trains.

From Eagle springs the road continues near the mountains on the left, until it crosses over to the plain beyond, and runs towards a chain of mountains that rise near the Rio Grande. Continuing near their base, it enters a deep rugged cañon, and after winding down its course a few miles, the spurs of the mountains diminishing in height, the cañon opens into the plain beyond, and the waters of the Rio Grande are visible about a league and a half distant.

The bottom lands of the Rio Grande valley on the American side, to the lower end of the island, a distance of fifty-five miles, are in many places very fertile. Timber is thinly scattered over the whole extent. The road up the lower part of the valley leads over a sandy soil, and is not good; the grass is coarse, and the grazing but ordinary.

The road crosses over a shallow ford to the island, and passing through the villages of San Elizario, Socorro and Isleta, re-crosses to the main land at the upper ford, and continues thence to the intersection of the Santa Fe road at the rancho opposite El Paso, making the distance from San Antonio six hundred and seventy-three miles. The worst portions of the route are found on the San Pedro, and up the valley of the Rio Grande. The amount of labor required to open the road and render it fit hereafter for military and commercial purposes, gave constant employment to a large working party during all the time we were on the march. The long distance in advance that the engineers were obliged to make reconnaissance before determining the route from one point to another, rendered their duties arduous.

It was not enough to know that a road could be made up one valley, or that a range of mountains could be passed, but it became necessary to explore the country further beyond to definitive points, before the opening of the route. When the nature of the country shall be seen by those who may hereafter pass over the road, it may excite surprise; but it will not be that so practicable a route has been found, but rather that any was found at all.

The town of El Paso is wholly situated in Mexico, there being, excepting the villages on the island, but three houses on the American side.

Beginning at a point on the Rio Grande ten miles *above* the town, and following *down* the Santa Fe road on the left bank of the river, the continuous chain of high mountains on the left approach close to the river,

and, rising on the opposite side, stretch off to the south. Through the spurs of these mountains the Rio Grande forces its way, and this is "El Paso" (the pass) of the river. A few miles below this point, and nearer the town, the river has a fall of some twelve feet: the water from this elevation is conveyed in large "zequias" or ditches for the purpose of irrigation.

Below the pass and beyond the mountains, (approaching by the Santa Fe road) the country opens into a broad plain, in which the *valley* of El Paso lies. The valley on the American side is narrow, if the island be excluded; the greater portion being on the opposite or Mexican side, in which the *town* is situated.

The Plaza and main buildings of El Paso are in the upper end, but the dwellings extend down the valley, forming a continuous village for about twelve miles. The houses are universally built of "adobes," and, with few exceptions, are but little better than mud hovels.

A garrison of two hundred men is stationed in the town, and the sentinels placed on the banks of the river are, to a certain extent, the guardians of the ford and the revenue.

The people, for years, have lived under the constant fear of the Indians; and not without cause, for the Apaches have committed repeated depredations in open day-light, in sight of the town. From this cause, and the miserable system of "peonage" that prevails, the products of agriculture are barely sufficient to support the inhabitants, and grain to supply the wants of emigrants, and for other purposes, has to be brought from Chihuahua.

The grape is extensively cultivated on the irrigable lands, and in size and flavor, is, perhaps, unequalled. The wine it yields, however, owing perhaps to the mode of manufacture or making, is rather indifferent. Some of the old wine is *said* to possess a fine flavor, but the Mexicans seldom permit it to attain any age. Peaches, pears and apricots are good: the apples are small and inferior in quality. Vegetation attains an enormous growth; and cactus were found that measured six and a half feet in circumference.

Excellent stone for building is found in the hills close by. Saw-mills are now being erected in the Sacramento mountains, eighty miles distant, where timber is said to be found in abundance.

On the plains near these mountains are extensive salt lakes, from which the State of Chihuahua draws its supply. The testimony is concurrent in relation to the richness of the silver mines in the neighborhood, but the Indians have always prevented their being worked to any advantage. The country around El Paso, excepting the bottom lands of the Rio Grande, is sandy, and covered with a dwarf growth of bushes. The large plains towards the east would afford a place for grazing, were the herds secure from the Indians; but to what extent it may become a pastoral country, depends in some measure on the discovery of water.

The island is low and flat, the soil rich and productive, and a system of irrigation is extended as far as the settlements. Its population is estimated at two thousand.

The valley of the Rio Grande, in proper hands, is capable of supporting a large population; and *below* the island the larger portion is on the American side.

El Paso, from its geographical position, presents itself as a resting place on one of the great "overland" routes between the seaports of the Atlantic on one side and those of the Pacific on the other. Fourteen miles above, and our territory crosses to the opposite side of the Rio Grande; a little further north and west are the headwaters of the Gila; and, should the route from El Paso to the seaboard on the west present no more difficulties than that from the east, there can easily be established between the Atlantic States and those that have so suddenly sprung into existence in the west—and which are destined to change, perhaps, the political institutions and commercial relations of half the world—a connexion that will strengthen the bonds of union by a free and constant intercourse. The government has here been a pioneer in the enterprise, and the little labor bestowed may not be lost to the public weal.

The distances given in the annexed table are accurate measurements made by the engineers, and generally indicate the encamping grounds and places where water may be found.

From San Antonio—						From point to point or camp.	Distance from San Antonio.
						Miles.	Miles.
To	Castroville	-	-	-	-	25.42	25.42
	Quihi	-	-	-	-	10.00	35.42
	Vandenburg	-	-	-	-	7.17	42.59
	Arroyo Hondo	-	-	-	-	3.80	46.39
	Rio Seco	-	-	-	-	8.98	55.37
	Ranchero's creek	-	-	-	-	8.38	63.75
	Sabinal	-	-	-	-	3.94	67.69
	Comanche creek	-	-	-	-	5.37	73.06
	Rio Frio	-	-	-	-	8.50	81.56
	Head of the Leona	-	-	-	-	7.06	88.62
	Nueces	-	-	-	-	9.04	97.66
	Turkey creek	-	-	-	-	10.37	108.03
	Elm creek	-	-	-	-	15.23	123.26
	Los Moros	-	-	-	-	7.13	130.39
	Piedra Pinta	-	-	-	-	7.46	137.85
	Zoquete	-	-	-	-	9.02	146.87
	Arroyo Pedro	-	-	-	-	3.81	150.68
	San Felipe	-	-	-	-	8.98	159.66
	San Pedro	-	-	-	-	10.70	170.36
	Painted caves	-	-	-	-	2.54	172.90
	Pallos Blancos	-	-	-	-	16.48	189.38
	Camp 2d on San Pedro	-	-	-	-	18.64	208.02
	Head of running water in summer	-	-	-	-	8.63	216.65
	Camp, head of valley	-	-	-	-	13.88	230.53
	Howard's springs	-	-	-	-	41.21	271.24
	Live Oak creek	-	-	-	-	32.40	304.14

From San Antonio—	From point to point or camp.	Distance from San Antonio.
	Miles.	Miles.
To Ferry of Pecos - - - - -	7.88	312.02
Camp above ferry - - - - -	12.59	324.61
Second camp above ferry - - - - -	16.23	340.84
Third camp, leave the Pecos - - - - -	7.74	348.58
Escondido creek - - - - -	18.24	366.82
Escondido springs - - - - -	8.58	375.40
Comanche springs - - - - -	19.47	394.87
Leon Springs - - - - -	9.57	404.44
Limpia - - - - -	37.00	441.44
Entrance to W. R. pass - - - - -	6.97	448.41
Camp in small valley - - - - -	4.50	452.91
Painted camp - - - - -	14.08	466.99
Smith's run - - - - -	26.33	493.32
Springs - - - - -	9.00	502.32
Rainwater or Providence creek - - - - -	17.82	520.14
Water-holes, (dry) - - - - -	18.77	538.91
Eagle springs - - - - -	21.57	560.48
Entrance to cañon - - - - -	22.61	583.09
Rio Grande - - - - -	8.81	591.90
Lower ford - - - - -	54.80	646.70
San Elizario - - - - -	5.00	651.70
Socorro - - - - -	4.00	655.15
Isleta - - - - -	1.10	659.25
Upper ford - - - - -	7.05	666.30
Coon's hacienda - - - - -	7.09	673.39

It might be well to remark that in all the streams between the San Antonio and San Pedro rivers fish are abundant, and that in their vicinity deer and turkeys are found.

The headwaters of the San Pedro are inhabited by beaver. Bear and peccary are also found in the same neighborhood, and antelope on the plains west of the Pecos.

Four different species of quails were killed—the common quail; the tufted quail, slightly ash colored; the California quail, with a long plume from the top of the head; and another variety with dark breast and black belly, the feathers on the breast having white round spots on them, and those on the back black spots; the last mentioned were found principally on the rocky sides of the mountains.

This side of the Pecos there is but little difficulty in procuring game for subsistence if good hunters are with the parties.

In returning to San Antonio we came by the Fredericksburg or upper route, to the point where it crosses the Pecos.

Leaving El Paso, this road bears an easterly course for thirty miles, to the Waco tanks, running over a level, sandy plain. The supply of water in the tanks depends on the rains. We did not find sufficient water in them for a train of 300 animals.

The passage of the Waco mountain is steep and difficult, though it should be stated that erroneous information induced us to take the road by the left of the mountain. The next water of note is found at "Ojo de los Alamos," in small holes dug on the side of a granite mountain, of rather difficult access. They do not contain water enough for a large train, but others could be easily sunk. Distance from the Waco tanks, twenty-five miles. The grazing is good, but there is no wood to be found, except small bushes. At Thorn's spring, about nine miles further on the road, water is found in abundance, but it had to be taken in buckets from a natural well in a cave vaulted over with rocks.

From the Waco mountain to the "Ojo del Cuerdo," the road is excellent. Here water in abundance is found—the grass is fine, but there is no wood. Numerous saline lakes are found on the plain. From here the road runs over several small spurs of hills, and then enters a large ravine, intersected by numerous small ones, which renders the travelling rough and difficult.

At the head of the large ravine, the long ascent of the Guadalupe mountain commences. The road winds along its side for near half a mile before the plain above is reached. The ascent is so steep, that the maximum load that can be drawn up may safely be stated not to exceed one-half that which can be transported on ordinary roads. Water was found at the head of the ravine, and in a forest of pines six miles beyond, and again a few miles in advance.

The Guadalupe mountains rise abruptly from the plain near this point to their highest elevation, and in an unbroken chain stretch over the table-land in a northeasterly direction, until their tops sink beneath the horizon in the distance. From these mountains one vast, irregular, and slightly broken plain or *mesa* extends to the Pecos river, and thence beyond view towards the headwaters of the Colorado and Brazos rivers.

After striking the Pecos below Delaware creek, the route lies down the river to the "Horsehead" crossing, a distance of over one hundred and seventy-five miles. But few places can be found more lonely, or that present a more dreary appearance, than all this region of the Pecos. Nought that is pleasing meets the eye—no sound falls on the ear. Here solitude reigns supreme, wrapt in the eternal silence of all ages past—a silence, perchance, unbroken from the beginning, save by the cackle of the wild fowl or the midnight howl of the wolf. Civilization in its strength has not been here, and the only signs of life or moving thing is now and then a single deer, a few antelopes, a flock of ducks circling over the lagoons, or a solitary crane winging his way up the course of the stream. Not a tree can be found under which the traveller can rest protected from the intense rays of the sun in summer, nor can wood be found to warm him in winter. The cold winds of autumn sweep with violence over the plain, and we encountered here in the middle of October, snow five inches deep.

The numerous salt-marshes through which the road runs were very

miry, and the animals would sink down in the quick-sand, unable to rise. The streams that carry to the river the surcharged water from the salt-lakes on the plain were with much difficulty passed; and it is from them that the water of the Pecos derives some of its saline and bitter properties. The grass is coarse and salt, and wood, even for culinary purposes, is with difficulty obtained. The country on the left bank of the river is a little more elevated than that down which we came, and appears more free from marshes.

We found the country about the "Horsehead" crossing extremely boggy; so much so that the animals could not be driven within a mile of the stream. From here, striking out from the river to avoid the impassable salt-marshes, the return route joins the one over which we went to El Paso, near the point where it turns off from the Pecos for Escondido creek. Thence, by our own road, we returned to San Antonio, after an absence of nearly six months. The time occupied in returning, with a small train of thirty-five wagons, was forty-one days.

The upper route, from the "Horsehead" crossing on the Pecos, continues by the Concho and San Saba rivers, &c., to Fredericksburg, and thence to the gulf, either by San Antonio or Austin; and has been examined and surveyed by Lieutenant F. T. Bryan, topographical engineer.

Such are the routes over which we passed, and in this brief description I have confined myself to such matters as may be useful to guide officers of the department when sending trains over the road hereafter.

In conclusion it might be observed, that a road following up the level country that obtains between the Pecos and the Sierra Diablo and other ranges, to the point where those mountains terminate in the plains to the north, and thence striking over towards the Rio Grande, leaving the Guadalupe mountains to the right, would avoid the passes of the former and the heights of the latter, and run throughout its whole extent over a comparatively level country, favorable to transit by steam; but the difficulty of procuring running water at proper intervals would seem to render intercommunication impracticable by the ordinary means of travelling with wagon trains.

S. G. FRENCH,
Captain and Assistant Quartermaster.

WASHINGTON CITY,
October 7, 1850.

GENERAL: In compliance with your orders of yesterday, I have the honor to submit to you a brief report on the subjects to which you refer, and particularly to the expedition to El Paso del Norte.

According to my instructions, after embarking the division of the army encamped at Pascagoula, I sailed for Galveston, Texas, and thence proceeded to Austin to make arrangements for transporting the troops to the frontier stations on the waters of the Trinity, Brazos, and Colorado rivers, and for furnishing them with supplies. This was during the inclement winter of 1848-'49, the troops marching from Houston to Austin, and thence to their respective stations, distances varying from 250 to 350

miles. They had many difficulties to encounter incident to such a country, and suffered not a little from the sleets and snows, from which they were protected only by canvass. This duty being accomplished, I was ordered by the late General Worth to repair to San Antonio to fit out and accompany an expedition to El Paso.

On arriving there, (in March,) I was informed by the chief assistant quartermaster in the department, Major Babbitt, that estimates for the supplies for that service had been made, and a contract entered into for some 600 unbroken mules; also, that an agent had been sent into the country for the purpose of purchasing oxen. These papers were turned over to me on my commencing the duties: and here, out of justice to the officers of the department, and to myself, you will pardon the alluding to the difficulties that were necessarily encountered. It was estimated that 250 additional wagons would be wanted; and these, with all the appointments, harness, and supplies, had to be shipped from New Orleans, or to be drawn from Brazos island, and were landed at Port Lavaca, some 140 miles from the point whence the expedition was to start.

For this train some 800 mules and horses, and over 1,100 oxen, were required, and more than 300 teamsters and mechanics had to be engaged.

As fast as the animals were purchased and received at San Antonio, they were sent to Lavaca to bring up the wagons and supplies; but it was not until April that the wild Mexican mules were received. Wild as they were, the greater part of them were immediately driven to the seaboard "lassoed," and forced into harness, to bring up the wagons; and the sudden change from grass to grain, on which they had never been fed before, united with labor, reduced some of them very much.

The majority of the wagons, on being brought to San Antonio, had to be altered for the use of oxen by substituting new poles or tongues, and new king-bolts with joints; and on their being exposed during the dry weather to the sun, it was found necessary to cut and reset nearly every tire on the wheels.

At this period troubles seemed to multiply. The necessary articles could not be procured; the cholera broke out with fearful mortality—the deaths numbering, perhaps, one-fifth of the inhabitants. The people forsook the town; men in service were dying and deserting; no physician for some time could be employed to visit the numbers sick, or restore confidence to the panic-stricken. The country was deluged with rains, and a flood, with a sudden rise, overflowed the camp of the troops that were under orders for the expedition, and damaged or swept away their stores and animals. The commanding general returning at this period from New Orleans, his sudden death, if possible, added to the universal gloom. Men in my employ, when with trains, died by the road side, or were left sick by their more fortunate companions at the nearest habitations by the way.

The epidemic continued, during the months of April and May, up to the period of departure.

After sending to Austin, I succeeded in getting a physician, who remained in camp with the men, which in some measure quieted their fears. During this season of alarm it was with difficulty men could be engaged in the department, and only the wish not to forfeit what was due them kept

others in employ. For several weeks but few, if any, persons visited the town. Still, in my camp, eight miles from the town, no exertions were spared. The men were kept herding animals on the prairies or with the trains, or in "breaking in" wild mules for harness. Forges were erected, the stocks made, the mules shod, and the numerous irons made for the altered wagons.

The cutting and resetting of the tires was tedious and laborious work, for all the wood had to be cut, and near a thousand bushels of coal burnt; but, by the teamsters assisting the mechanics, I was able to report the train in readiness to move by the latter part of May.

The first orders were to proceed by the way of Fredericksburg, and some supplies of forage were put in *dépôt* on the road; but on the return of the engineers who had explored the country to El Paso, that route was abandoned, and the one by the Leona taken as preferable. As no forage could be procured immediately on this route, arrangements were made for a small supply to be purchased in Mexico, and to be delivered at the Leona, where the general trains were to concentrate and await the arrival of the troops.

The regimental quartermaster was furnished with the requisite number of wagons for the troops, and twenty ox teams for his stores. I continued the loading of the wagons until *all* the commissary stores and quartermaster's property were taken in, and caused them to move forward to the rendezvous at the Leona, where the last arrived on the 7th of June. The troops under Major Van Horne, with the regimental train, started on the first of the month, but, owing to the frequent rains and bad roads, did not reach the Leona until five or six days after the supply trains.

At this place Colonel Johnstone was furnished with a sufficient number of wagons for his party, with working tools, &c., and he took the advance, making explorations of this almost unknown and pathless country, and opening a road over which we passed.

We remained in camp getting a supply of coal, cutting the tire as the wheels shrunk, and making final preparations for departure. On the 18th of June the trains moved a few miles, and on the following day joined with the troops, and all encamped on the banks of the Nueces river.

The whole number of wagons was near two hundred and seventy-five, and the number of animals along, including the beef cattle and the few with the emigrants, was about two thousand five hundred. While at the Leona the commanding officer directed that agents should be sent into Mexico to procure some additional mules for the regimental train, and a supply of grain, if possible, to meet us on the Los Moros, none having been received at the Leona.

We encamped on Turkey creek on the 20th, and owing to the rains that fell, rendering the roads boggy, we could not move until the 29th. Even then they were so bad that the first wagons were in camp thirteen miles distant before the last could move. The trains were thus extended all that distance, the rear moving at 12 m., and not getting into camp until sunset.

Finding that the animals must perish, subsisting as they were on grass, if they remained so long in harness, I again represented to the commander

the necessity of furnishing me with an escort and permitting me to march alone, free from the baggage-wagons of the troops and regimental train, or else to subdivide the whole into divisions with escorts, to march on consecutive days, but the order of march was not changed.

On the 2d of July, while encamped on the Zoquete, Mr. Minter returned from San Fernandez with 30 mules. He had marched from Eagle Pass to reach us in thirty hours. In the morning he started again for Mexico to bring the balance of the animals purchased in other towns.

On the 6th we reached the San Felipe, where we were overtaken by Mr. Campbell, who had agreed to furnish me with grain on the Leona. Following subsequent directions, he left Eagle Pass and endeavored to intercept our trains at the Lost Moros; but owing to the rains, he had been wandering over the wet and unknown prairies for a road some sixteen days; and I mention this to show the almost impossibility of travelling on the wet prairies, where there is not a well-beaten road.

On the morning of the 8th Major Van Horne, with all the troops excepting one company, left for an escort to my trains, moved on in the advance with their wagons and a supply of provisions. I remained in camp there fifteen days. The advance were encamped during the same time two days' march ahead, having overtaken the engineer party.

On the 7th Mr. Thompson, the express rider, returned from Mexico in charge of some carts loaded with corn. He reported that the Mexicans would not come on any further than the Los Moros, and that he had left them there. As this was a violation of their contract, I felt obliged to send an armed party to bring the carts into camp; but on explanation being made by the interpreter whom I sent back, they willingly came on and joined us. The agent sent into Mexico returned on the 14th, and brought with him the remainder of the mules purchased. They were much wanted; for experience had taught us that every herdsman must have two animals, one to ride by day, and the other at night for herding. I have never seen any service harder for animals than that of herding a large drove of cattle; and so severe was it on the saddle-horses, that many of them died before we could get mules to relieve them.

By the 20th of July the troops were obliged to move, the animals having drank all the water that could be found, and after much suffering from thirst they reached the second crossing of the San Pedro.

Whilst we were encamped at San Felipe, and for some days after, the thermometer would indicate a temperature during the day varying from 103° to 106°, and this in the shade of trees or beneath double awnings. Vegetation became parched and withered up, and the wind felt as warm to the face as though it came from a furnace.

On the morning of the 22d we left our camp, crossed the San Pedro, and the day following, after a tedious march, reached the Palos Blancos. Finding but little water there for the mules and none for the oxen, one of the ox trains moved on at sunset, and arrived at the second crossing of the San Pedro after much suffering and loss of animals, for the heat was oppressive.

The march now was up the valley of the river to its source, which we reached on the 29th, overtaking Major Van Horne. The next day he moved on, leaving me an additional company with two mountain howit-

zers, under the command of Brevet Major Richardson, which added to the company under Brevet Major Shepherd, formed the escort. We did not overtake the commanding officer again until the 24th of August.

From the head-waters of the San Pedro to Live Oak creek, a distance of some seventy miles, but one spring of water is found, and the oxen suffered very much, and some were left on the road unable to travel by reason of very swollen and tender feet. We reached the Pecos river on the 9th, and crossed it by taking one wagon over at a time in a flat-boat that we had brought with us from San Antonio. We were so unfortunate as to lose one wagon, by the end of the boat being drawn down by the current and throwing the wagon into the stream. In returning, the baggage and stores were crossed on a raft, made by securing twenty-seven kegs to three spare wagon poles, on which was placed a wagon body. The wagons being empty, were drawn over by hand with ropes. With the flat-boat twenty-five loaded wagons could be crossed per hour.

The march was now continued without much interruption or delay until the whole force again joined at the "Painted Camp." From there the trains marched separately. We had then passed out of the limestone formation of country, and entered the mountainous region, with rocks of the primitive formation, and the sharp angular fragments that covered the ground everywhere made many of the cattle tender-footed and lame, while the mountain passes and deep, dark, rugged cañons, with rocky bottoms extending for miles, added to their suffering. From Providence creek to the Rio Grande, a distance of over sixty miles, there was but one small spring of water, and it was therefore directed by the commanding officer that one train should leave on each of four consecutive days, to allow the spring to fill during the intervals; but the water almost entirely failed, and some of the cattle before the river was reached appeared mad, digging holes in the sand with their feet, and thrusting their noses into them to let the parched lips meet the moist earth.

On the 3d of September we reached the Rio Grande, and on the 8th arrived at El Paso—having been one hundred days on the road.

During the march from the rendezvous I sent, from time to time, from the main train, all the spare wagons I had to the assistance and relief of the company teams and the regimental train. Forty-nine wagons in all were sent; and these, added to what they originally had, increased their ox-train to between sixty and seventy teams. This train moved always under the direction of the commanding officer; and, from its being in advance, or from its marching at different hours, and more generally in the day-time, sustained the greatest loss of animals—amounting in all to one hundred and four oxen from the rendezvous to the place of destination. The loss from the trains under my own immediate charge for the same period was eighty. This is proportionally not a much greater loss than large trains experience on the well-known Santa Fe route. As trains increase in size, the danger of animals straying and all other causes of loss increase, while the means of subsistence diminish.

The severest loss was caused by their feet being made tender by the angular rocks. This would inflame and swell their legs to such a degree that they could not walk, and such were necessarily left by the way. During the time we were in camp, I caused the smiths to devote all their

spare time to making shoes for the oxen; and about 175 were forged, and some 40 oxen shod. These animals travelled with more ease over the stony plains. More would have been shod during the march, only that the smiths were chiefly engaged with the mules or the wagon-tires as they became loose. The drivers were made sometimes to incase the feet of their cattle in the green hide of those killed from the beef herd, making a kind of raw-hide boot; but they did not answer much the purpose. The thorns from the chaparral penetrating their feet, injured many.

The loss of mules from my trains from the Leona to El Paso, from death, straying, drowning, including those stolen *en route*, and those by men supposed to be of "Glanton's" party, or otherwise, was, I believe, only fourteen. This is exclusive of some six or seven broken down and sent back from the San Felipe, and a few lost from the train with the engineer party. I have not my official papers here with me, but I believe only three mules were lost from the train of twenty-five wagons on the route returning, and two of them escaped over the mountains. It might not be out of place here to mention how far some of these animals travelled during the season. The mules, being purchased in Mexico, were driven near 600 miles to San Antonio; from thence to Lavaca and back, by the upper route, 300 miles; to El Paso and back 1,360 miles; and thence to Eagle Pass and return, 350 miles—being in all 2,600 miles. Many of the oxen were driven from Bastrop and La Grange to San Antonio; thence to Port Lavaca and return, and from San Antonio to El Paso, a distance of over 1,000 miles. A question here presents itself as to which is the most serviceable animal for such expeditions, the ox or the mule. Both possess alike, though in different degrees, certain qualities; while in others they are dissimilar. The *nature* of the country must be considered in the question of economy. Here it may be supposed that the animals subsisted entirely by grazing. The mule will travel with a load a fraction over two and a half miles per hour, and in that time gain on the ox 900 yards—the ox travelling two miles per hour. I have known an ox-train to travel forty miles in twenty-two consecutive hours.

Mules are more gregarious than oxen, and more easily herded at night, though more liable to be "stampeded." I have seen a drove of 300 "stampeded" in the day-time from such a slight cause as one of their number, with a saddle on, joining the herd at a run. At night, an Indian, a wolf, or a horse running by is sufficient cause for the loss of a herd; and hence arises the great risk in an Indian country. Mules, too, when once in the possession of Indians, cannot often be overtaken by the pursuing party, whereas oxen can; but oxen will stray off singly from the herds, and lie down in the bushes, and thus often are lost. Mules will subsist where oxen cannot; and, in mountainous countries, they can always feed on the hill-sides. Their powers of enduring fatigue, hunger, and thirst are greater; and more particularly so when the marches are made during the day. They require only one-fourth as much water. The ox has the advantage in strength; and particularly is this serviceable in wet, boggy soils, or on level plains, but in a less degree is it exerted in steep ascents. The mule is much the more tractable animal, and for *general service* with troops is much preferable. The average cost in Texas for a good yoke of

gentle oxen, delivered, was near \$40; for good mules, from \$50 to \$60. Six mules or four yoke of oxen constituted a team.

Oxen in very warm weather, when the march is long, should be driven at night, but should always be stopped and permitted to graze while the dew is on the grass. Our mules being wild when we started, at first grass was cut for them; next they were hobbled while grazing; but soon both these methods were abandoned from necessity, and the animals turned loose, day and night, under charge of a strong guard of armed teamsters and herdsmen, to prevent the approach of Indians and loss by "stampede." During a stampede, when the mules are being led away by a horse, their flight may be arrested by shooting the horse. Horses should not be permitted to run loose with a herd of mules, for the mules will follow them almost invariably: such attachment have they for a horse, that they will follow one wherever he may be led, being governed either by sight of him or the sound of a bell attached to his neck.

Notwithstanding that the animals belonging to these trains subsist chiefly by grazing, they are hazardous and expensive, as land transportation generally is; and were these expeditions not to assume a military character, thereby overawing the Indians frequenting the section of country through which they pass, it would be well to inquire what articles of supply could be procured from Mexico, to diminish their size.

More difficulty was experienced in subsisting the animals at El Paso than when on the march. The mules had to be placed on the island at a point near twenty miles from where we were encamped, and the oxen driven some fifteen miles up the valley in the opposite direction to graze on the bottoms, where the chaparral was so thick that it was nearly impossible to keep them from being lost, exposing them to the Indians, and where they were liable to be driven off stealthily by emigrants or Mexicans. But these were not all: for on the opposite side of the river, and in the employ of the State of Chihuahua, was a lawless band under the notorious Glanton, and men wishing to join his party sought every opportunity, day and night, to steal our horses and mules. The animals, thus, to forage, had to be scattered up and down the valley a distance of near forty miles, with no other immediate protection than the armed teamsters and herdsmen; for I could not procure a sentinel, much less a military guard. On the march, I was always allowed *one* sentinel to guard the property and the different herds of animals. The same annoyances surrounded Captain Bowman with his animals, and his duties as commissary and quartermaster became very laborious.

Persons unacquainted with that section of country can form no just appreciation of these difficulties; perhaps at no time during the Mexican war were men or troops so beset with trials. The term of service for the teamsters had expired, and, as they wished to continue on to California, they had to be discharged, notwithstanding that the regimental quartermaster was under orders to send a return train of one hundred and twenty wagons to the Pecos, to meet one then on the road. Houses were not to be had for storage; and forage could not be procured for the few teams in daily use, except by purchasing grass pulled up by the roots from the gardens in the town opposite, and which was brought into camp by the "peons" in small quantities. The alcaldes were visited, and I believe they did all

they could to aid in furnishing the most necessary wants. The truth was, the whole population, men and beasts, were in a state bordering on starvation; and, before I left on my return, I learned that orders had been given by the *alcaldes* to forbid any grain being given to beasts of burden. Grass pulled up the roots was worth \$40 per ton; and wood \$12 per cord, corn \$3 per bushel, and hams 50 cents per pound. Two causes may be assigned for the scarcity of subsistence and forage.

Up to the period of our arrival, the Indians possessed the county even to the walls of the town, driving off the live stock, and limiting agriculture chiefly to the gardens adjoining the dwellings. But little had been sown, and less reaped, and much of this had been carried off by the tide of emigration. The length of time passed on the road admonished me that the funds that had been furnished me were entirely inadequate to the discharge of half the men; and to meet such contingency, and to prevent them from being a burden on the department after our arrival, I despatched an agent from the Comanche springs, (on the great Indian trail,) by the way of Presidio del Norte, to Chihuahua, at much risk of life, to secure the necessary funds, to meet me at El Paso. The party accomplished the object for which they were sent, and reached El Paso before we did. From the agent I learned that grain could be had in Chihuahua, and a contract was made for a small supply to enable us to return.

For the protection of the settlements at El Paso, troops will probably be required for many years, leaving out its consideration as a post of military importance; and an inquiry into the most economical and certain mode of supplying them with subsistence and forage, &c., was enjoined upon me by my instructions.

Certainly, ere a few years shall have passed, a considerable portion of the valley of the Rio Grande, in the immediate vicinity, will be under cultivation, protected against the Indian depredations as it is by a military force, and yield in abundance forage and some articles of subsistence. In the mean time, flour, corn, corn meal, sugar, and soap might be procured from Chihuahua at less cost than when transported from the seaboard. Individuals offered to contract for the delivery of flour from Chihuahua for 12½ cents per pound. Corn can be delivered at an average cost of \$2 80 per bushel, by timely arrangements; the freight from Chihuahua was four cents per pound—the variable function being the original cost of the grain there. Wine, undergoing the acetic fermentation, will afford good vinegar. Soap is abundant; and salt abounds in the lakes, though I am not certain but that it may contain some impurities. Coffee, candles, bacon, clothing, quartermaster's stores, &c., will have to be drawn from the coast. Antiscorbutics will not be wanted, as vegetables can be raised in abundance.

Beef cattle can be driven from western Texas, where they are numerous, or be purchased in Chihuahua. I have alluded to these matters as you desire, though they properly belong to the subsistence branch of the service.

In relation to lumber for building purposes, I have gathered but little information; for really the whole country may be said to be yet unexplored, even near the post, because of the Indians. Parties had gone out with mills to saw lumber, but I have heard nothing from them since. It was

reported that timber was found forty miles distant, and also in the Sacramento mountains, eighty miles from the post. Considerable forests are found in the valley below the Island, but they are of limited extent.

To those familiar with travelling in Texas, positive distance from point to point is not of so much consideration as good roads through a fine region of country; hence transportation sometimes takes more indirect routes. It can be said with safety that any new military post on the frontier will for its supplies involve *one-third* more expense, all else being equal, than at a period of a few years after its establishment. The multiplication of new depots involves expense, and is often a fruitful source of delays, unless they embrace most of the stores required, or are arranged with system; and, in all military operations, certainty of execution is all-important, while delays are equally dangerous. A few large depots, well arranged, at points judiciously selected, and abundantly supplied for *frontier service*, where all trains have to be *escorted*, appear, from my experience, most advantageous. Trains cannot well be sent to as many points as there articles required, are less safe, and incur more expense; hence depots of commissary, ordnance, and quartermaster's stores should be at the same point.

The best route to the stations on the Brazos and Trinity I cannot determine from actual observation, though Galveston has been named in answer to my inquiries. From Houston a line has been established on the dividing ridge between those rivers, and supplies can be forwarded.

For a more particular description of the road to El Paso, and the nature of the country through which it passes, you are respectfully referred to my former report, forwarded to your office from San Antonio, in December, 1849.

Very respectfully, your obedient servant,

S. G. FRENCH,

Captain and Assistant Quartermaster.

Major General T. S. JESUP,

Quartermaster General, U. S. A.

E.

ASSISTANT QUARTERMASTER'S OFFICE,

Brazos Santiago, Texas, September 5, 1850.

GENERAL: I have the honor to report that Captain Love has returned from his explorations of the Rio Grande.

He left Ringgold barracks, Texas, (nearly opposite Camargo, Mexico,) with the keel-boat "Major Babbitt," and a crew of twelve men, on the 11th of March, 1850. The "Major Babbitt" was fifty feet long, sixteen wide, and drew, with her crew, provisions, arms, &c., on board, eighteen inches of water. Captain Love was instructed to carry her to the highest attainable point on the Rio Grande; and I am satisfied he faithfully complied with the orders received. He found this point at a distance of 967 miles from Ringgold barracks, where his further progress in the keel-boat was stopped by impassable falls which he named "Brooke's falls." On

arriving at this point, Captain Love carried the skiff which accompanied his boat around these falls, launched her, and rowed her forty-seven miles to other falls, which he named "Babbitt's falls." These are 1,014 miles above Ringgold barracks, about 150 by land below El Paso, 25 by land below the mouth of the Concho, and 291 by water above the mouth of the Puerco, sometimes called the Pecos.

Beyond this point he found it impossible to proceed with the skiff either by land or water, and left it, the 15th of July, on his return. He arrived at Ringgold barracks on the 11th August, where he turned over his boat to the quartermaster, and reported to me at this post on the 25th of August.

From Captain Love's rough notes, and from frequent conversations with him, I am enabled to present the following report of his expedition. I would here observe that his distances were not taken with mathematical precision, yet I believe them to be sufficiently accurate for all practical purposes. All the distances given are by the river, unless specially mentioned as being by land. On the accompanying map, (the skeleton of which was taken from Emory's, published in 1844,) I have put down the towns on both sides of the river, the rivers and creeks emptying into the Rio Grande, coal mines, &c., and the distance of every important point from Ringgold barracks.

Navigation of the river.

It would here be proper to remark that Captain Love made his expedition at a time when the water was lower in the Rio Grande than had been known for several years, and therefore it was a most favorable season to ascertain the practicability of its navigation at all times.

From Ringgold barracks to Kingsbury's falls, which are 169 miles above Fort McIntosh, (near Laredo,) and eleven below Presidio Rio Grande, (where General Wool's column crossed into Mexico in 1846,) there are obstructions in the river, which would prevent its navigation about seven months of each year by steamboats of the class which now run between its mouth and Ringgold barracks. During the other five months—from June to November—when the river is generally high, steamboats of the largest class now running on the lower Rio Grande could go without difficulty to Kingsbury's falls. During the seven months of low, or rather ordinary water, there are three and a half feet of water in the channel, which is about twenty-two feet wide. A smaller class steamboat could be constructed, (iron would probably be the best,) to navigate the channel at all seasons of the year: those adapted for towing keel-boats would perhaps be preferable. This narrow channel only occurs at intervals; and Captain Love is of opinion that it could be widened to admit the passage of the largest-class steamboats now on the river—say of the size of the United States "Corvette" and Major Brown," which are about 150 feet long, 46 wide, and draw, loaded, three and a half feet—for \$10,000. As Captain Love is a better sailor and frontiersman than a civil engineer, probably a nearer approximation to the truth would be arrived at by doubling or trebling his estimate. Private steamboats of about the size of the above-mentioned government boats run at all seasons as high as Guerrero, 103 miles above Ringgold barracks.

Kingsbury's falls.

These falls entirely obstruct the navigation of the river for steamboats. Two keel-boats, the "Harry Love" and "Major Babbitt," have been hauled over them with much difficulty. They are about 200 feet long, with a fall of four feet; and the rock which forms them is argillaceous limestone, which is easily removed with a crowbar. Captain Love is of opinion that a channel could be cut through them, or rather that the present channel could be widened to admit the passage of the steamboats "Corvette" and "Major Brown," for about \$3,000. Captain Kingsbury, (a practicable engineer,) who made an examination of them in 1819, under my instructions, (see my report dated May 16, 1849,) assured me that a channel could be cut through them to allow the passage of the keel-boat "Harry Love" (which was 75 feet long, 20 wide, and drew 18 inches of water) for less than \$500.

Captain Love was informed by an American merchant residing at the town of Presidio, Mexico, six miles from the falls, that, during five months of last year, when the water was unusually high, a steamboat drawing $3\frac{1}{2}$ feet could have run over them. This I think doubtful.

From Kingsbury's falls up the mouth of the San Pedro or Devil's river a distance of 232 miles, there is nothing to obstruct the navigation of the river with steamboats of the largest class running on the lower Rio Grande. Although the river was at its lowest known stage when Captain Love passed up, there were nearly four feet of water, with a wide channel.

The mouth of Devil's river, which is about 100 miles below the mouth of the Puerco, and 617 above Ringgold barracks, is the head of steamboat navigation. Above this the Rio Grande runs between high mountains, is deep, rapid, crooked, and narrow. It, however, could be navigated with some difficulty by keel-boats to a point 65 miles above the "Grand Indian crossing," or about 283 miles above the mouth of Devil's river.

The garrison at Fort McIntosh (Loredo) is now supplied by keel-boats and a train of from 30 to 46 mule teams; the latter also supplies Fort Duncan, (near Eagle Pass,) which is 100 miles by the road above Loredo, and 65 by the river above Kingsbury's falls. If the obstructions at Kingsbury's falls were removed, Fort Duncan could be furnished by keel or steamboats, thus obviating the necessity of an expensive wagon-train.

Should the river be rendered navigable, at the trifling expense above mentioned, to the mouth of Devil's river, it would then become an important question whether it might not be judicious economy to establish a depot at that point, and transport our stores from thence by land to El Paso, instead of, as at present, transporting them by wagons, at an immense expense, from Lavaca, on the Gulf of Mexico, to El Paso, a distance of 850 miles. Captain Love, who rode from El Paso to San Antonio, about a year since, with despatches, believes that a good road could be made without much labor or expense from the mouth of Devil's river to El Paso, and that the distance would not exceed 300 miles. This estimate is, of course, in a measure conjectural, but I think the route indicated well worth an examination; and if Captain Love's opinion should prove to be correct, the subject of a change in the manner of supplying

El Paso, and perhaps Santa Fe, which is 320 miles above El Paso, would be well worthy the attention of the department.

Military posts, towns, soil, products, &c.

Ringgold barracks is the first military station on the Rio Grande above Fort Brown, and is garrisoned by two companies of the first infantry, under the command of Major Lamotte. This is a depot from which are supplied Fort McIntosh, Fort Duncan, the Texas rangers, and other mounted troops stationed temporarily in the vicinity of those posts. All the supplies for this depot are transported from Fort Brown, at present, by the United States steamboat "Corvette."

The next military post on the Rio Grande is Fort McIntosh, situated near the old town of Laredo, and is garrisoned by two companies of the first infantry, under the command of Captain Burbank.

Between Ringgold barracks and Fort McIntosh are several towns, viz: Camargo, situated on the San Juan river, three miles from its junction with the Rio Grande, having a population of about 2,000; Rio Grande City, a new and flourishing place on the American side, one mile above Ringgold barracks; Rome, a new town on the Texas side, with a population of about 500, among whom are several enterprising merchants, who carry on considerable trade with the neighboring Mexican States; Mier, situated two miles from the Rio Grande, on the river Alcantro, with a population of about 2,000; Guerrero, six miles from the Rio Grande, on the Salado, with a population of about 4,000. The soil on both sides of the Rio Grande, between Ringgold barracks and Fort McIntosh, is very fertile, and under cultivation. The principal products are corn, beans, melons, &c. Some tobacco planted this year for the first time looks well. Ebony, willow, mezquite, and hackberry grow along its banks. The grazing is excellent, supporting immense flocks of sheep and goats and vast herds of cattle. Large droves of wild horses and cattle are seen in every direction. Game is very abundant. There are large mines of bituminous coal near Guerrero. The distance between these two points—Ringgold barracks and Fort McIntosh—is 120 miles by land, and 216 by water.

The next military post is Fort Duncan, (near Eagle Pass,) garrisoned by three companies of the first infantry, under the command of Colonel Morris. It is about 100 miles by land, and 234 by water, above Fort McIntosh. The only town of any size between Forts McIntosh and Duncan is Presidio, situated six miles from the Rio Grande, opposite the ford at Presidio Rio Grande, and about 30 miles from Fort Duncan. It contains 2,000 inhabitants, and has a garrison of 200 men.

A little town is springing up just below Fort Duncan, which will probably become one of considerable commercial importance, as it is near that point where the roads from Mapimi, Parras, Monclova, Santa Rosa, San Fernando, Nava, Presidio, &c., strike the Rio Grande.

The soil between Fort McIntosh and Fort Duncan is excellent; but, in consequence of the frequent incursions of the Indians, only a small portion is under cultivation. The farmers turn their attention, on a grand scale, to the raising of sheep and goats—animals which the Indians never

steal. Wild horses and game are abundant. Timber the same as below Fort McIntosh, with the addition of pecan. There are two inexhaustible mines of bituminous coal, of superior quality, on the Texas side of the river, specimens of which, brought down by Captain Love, I have tested.

There are several rich silver mines on the Mexican side, some 40 or 50 miles back from Presidio Rio Grande, which were worked to advantage by the Spaniards, before their expulsion in 1829, even after paying a handsome per centage of the nett proceeds to the Mexican government and the owners of the land. Nothing prevents their being worked now but the want of capital and perhaps energy.

There are no settlements, either American or Mexican, above Fort Duncan; neither will their be any, until settlers are afforded some protection against the Indians.

The country and soil between Fort Duncan and the mouth of Devil's river are represented by Captain Love as beautiful and rich beyond description, and watered by numerous streams flowing into the Rio Grande from both sides. The principal are the Escondido, or San Fernando, Elm, Morel, Las Moras, Pecan, San Filippi, Bear, and Turkey. The whole country is susceptible of irrigation; but, from a single visit, it of course could not be decided whether a scarcity of rain in that region would render this mode of watering the soil necessary. The lands are well timbered at intervals with live oak, pecan, mulberry, hackberry, ash, mezquite, &c. There are many fine mill-sites on the streams, and nearly all have excellent water-power. They abound with perch and the regular speckled trout of our northern mountain streams. The bear, antelope, deer, jaguar, ocelot, ounce, puma, catamount, wildcat, wolf, turkey, goose, duck, grouse, partridge, pigeon, squirrel, *chichalaca*, &c., &c., were found in great abundance. Captain Love says that he frequently saw herds of black-tail deer numbering two or three thousand. He also saw immense droves of wild horses and cattle. He describes this country as the finest in the world for grazing, and believes it capable of sustaining *almost any given number* of sheep and goats. From the mildness of the climate, sheep, in this region, and in fact along the whole valley of the Rio Grande to its mouth, require no sheds during the winter months; and it is also unnecessary to cut hay for them, as they can graze the entire year. The sheep along the valley of the Rio Grande seem to be free from the diseases so common at the north. From this fact, the small expense in taking care of them, and the first cost, (about fifty cents per head,) this will become a very lucrative business.

There is an extensive mine of bituminous coal, on the Texas side, about twelve miles above Fort Duncan.

The face of the country between the mouth of Devil's river and Babbitt's falls is generally mountainous and barren along the river, though portions of it back from the Rio Grande, between the Devil's river and the Puerco, are good for grazing or cultivation. A valley about ten miles wide, covered with fine mezquite grass, stretches for hundreds of miles between the Puerco and Rio Grande.

Captain Love saw no Indians during his expedition, but passed many places where they had recently been with large numbers of horses and

mules, and saw numerous small fires at night in the mountains, probably indicating their presence.

About fifty miles below the mouth of the Puerco there is a large cave containing several rooms, with natural arches overhead, and capable of holding one thousand men. A narrow passage leading from it probably terminates on the other side of the mountain, as a strong current of air rushed through the entrance. A short distance above the cave there are thirteen natural towers about two thousand feet high and two hundred in diameter.

The "*Grand Indian crossing*" is one hundred and twenty-one miles above the mouth of the Puerco. This is the ford where the Comanche and other tribes of Indians pass the Rio Grande, when making their incursions into Mexico, and is the only crossing-place for more than four hundred miles, as the river from the mouth of Devil's river to Babbitt's falls (and probably a long distance above) is from twelve to eighteen feet deep. There are four feet of water at the crossing. The city of Chihuahua is only one hundred and fifty miles from this point. The road leading to the "crossing" runs along the valley between the Rio Grande and Puerco, mentioned above, is very wide, well beaten, and resembles a much-travelled thoroughfare. It runs up this valley some two hundred miles when it crosses the Puerco and goes off into the Indian summer range. It can be seen from the mountains ten or fifteen miles, winding along the valley.

A garrison stationed at this point would enable us to prevent the passage of the Indians into Mexico, and materially aid in carrying out our treaty stipulations with that nation relative to this subject. It could be supplied with some difficulty by keel-boats.

The Indian appears to be the natural enemy of the Mexican, for he kills him whenever he can find him, and frequently for no possible reason. The Mexicans have such a dread of Indians that they never stand their fire, but run at the very first indication of their presence. The Indians have been very troublesome to the Mexicans for the last two years, and have appeared in large bodies as far south as Durango. The military commander of that place, about a year since, hired at an extravagant compensation, a company of Americans, who were on their way to California, to fight a party of some two hundred who were in the neighborhood—this, at a time when there were a large garrison of regular troops in the city and several thousand citizens capable of bearing arms.

The establishment of another military post at the mouth of Devil's river, and one or two between it and Fort Duncan, (Eagle Pass,) would enable us not only more faithfully to perform our treaty stipulations with Mexico, but would cause that fertile country below the Devil's river to be settled by a peaceful population, and the rich prairies whitened by the flocks of pioneer farmers from the old States.

I have the honor to be, general,

Most respectfully, your obedient servant,

W. W. CHAPMAN,

Brevet Major and Assistant Quartermaster.

Major General T. S. JESUP,

Quartermaster General, Washington, D. C.

F.

CHIEF QUARTERMASTER'S OFFICE,
Tampa, October 21, 1850.

GENERAL: I have the honor to report the operations of the quartermaster's department in Florida during the past year, under my direction, as follows:

To meet the contingency of hostile operations against the Seminole Indians, supplies were first accumulated at St. Augustine and Tampa, in August, 1849. From the former depot supplies were furnished to establish posts on the Atlantic coast, to wit: New Smyrna, Indian river, and Fort Dallas, on the Miami river. The attention of the commanding general being first directed to the protection of the frontier settlements, and Pilatka, on the St. John's, being a better point for sending supplies up the St. John's and Ochlawaha rivers, Pilatka was substituted as a depot, and St. Augustine broken up. Temporary posts were established at Orange creek, Okehumké, the Withlacooche, Hillsborough, and Flint rivers, on the high-road leading from Tampa to Pilatka, and on Lakes Hains and Griffin, the head-waters of the Ochlawaha. A depot was established at Savannah for furnishing a depot at Indian river, the magnitude of which position was increased in consequence of the location of a line of posts westerly from that point to the Kissimme river. The operations being wholly of a protective character up to this time, and the Indians, since their murders at Indian river and the trading-house on Pease creek, retiring to their assigned limits in south Florida, where active operations, if necessary, would take place, the importance of Tampa as a depot became greatly enhanced, and large supplies were required and received at this point from Brevet Colonel Hunt, at New Orleans. From Tampa, posts on an easterly line, to connect with the posts west from Indian river, were established, with a sub-depot on Pease creek. The line thus advanced caused all the posts to the north of it to be abandoned, and the troops concentrated on this line and south of it. A sub-depot was placed on the Manatee river to supply the posts on a line to Chokkomicklu, another point on Pease creek, where the burnt store stood; here, also, a bridge of 120 feet span was constructed, for operating to the south, if necessary. Two other posts were established at Charlotte harbor—one at St. Joseph's island, and the other at the Carlosahatchee river. The great number of posts located, and frequent changes of the stations of the troops, required a large amount of land and water transportation and material, all of which was furnished to meet the wants of the service and the wishes of the commanding general—which, upon retiring from the immediate command of the troops in Florida, he took occasion to express in a letter to me, herewith transmitted. An efficient train of 112 wagons and teams was early organized, and kept in activity, moving with the troops through the country, and keeping up supplies at the several posts, from time to time, of subsistence, forage, and quartermaster's stores. Before any of the steamers belonging to the quartermaster's department could be sent to the Atlantic coast of Florida from the Gulf of Mexico, the services of a chartered steamer were needed to communicate between Savannah and Indian river, until in February, when she was relieved by the iron pro-

pellier Ashland and steamer Monmouth; these kept the depot at Indian river supplied until it became necessary to lay them up, being unserviceable. These were old boats when sent to Florida. The water transportation to Tampa consisted of steamers Fashion, Colonel Clay, and Derosssett. In February the Derosssett became disabled, and the steamer Planter was purchased by Colonel Hunt to supply her place. The Derosssett was subsequently repaired, with the means in the department at Tampa, and has since been sold at New Orleans. At eighteen posts established, full and safe protection was given to the public property, and the troops liberally supplied with camp equipage. At the permanent posts, storehouses, stables, hospitals, and quarters for men and officers, have been erected. In all cases, this work has been accomplished by the labor of the troops, with materials obtained by them in the country—a carpenter in but few cases being hired to instruct the laborers.

In July, a reduction of the land transportation was ordered, and the quantity not required in Florida directed to be sent to Texas. The steamer "Fashion" has transported the surplus transportation, and, in one more trip, will finish that service. There remain in Florida fifty-five mule-teams, one hundred battery horses, and seventy horses in the quartermaster's department for express and other purposes; (sixty-four horses and forty mules remain to go to Texas.) The depot at Tampa, at first under the control of Major Haskins, was, on account of his enfeebled condition, assigned as the station of Brevet Major Donaldson. Of the efficiency of Major Donaldson I cannot speak in too high praise, and the commanding general's notice of his services renders it superfluous for me to say more. The depot at Indian river was assigned to Captain Jordan, to whom credit is due for its organization, and for meeting the wants of the department on the east side of Florida. To both these officers I am indebted for a zealous support in the conduct of the department.

I have drawn upon you for ninety-seven thousand nine hundred and ninety-seven dollars and forty-three cents in the past year, and received thirty-one thousand five hundred and ten dollars from the treasury and other sources, as per statement herewith. This is the amount that has passed through my hands for the department in Florida. Of the expenditures in connexion with the service at Savannah and New Orleans, reports from the officers at those places will give information. Details concerning the depots at Tampa and Indian river will be furnished by the officers immediately in charge of them. I take occasion to urge again the establishment of an "army wagon-yard," connected with the Quartermaster's department. I imagine no civilized nation at this day would intrust to contractors the manufacture of gun-carriages, &c.; and no officer of experience will dispute that the transportation of the army should be as perfect and free from blemish as the work turned out from our arsenals. I trust, general, that you will make exertions to obtain the appropriation from Congress, at its next session, asked for in my correspondence with you on this subject.

Respectfully submitted,

A. C. MYERS,
Brevet Major and A. Q. M.

Major General JESUP,
Quartermaster General, Washington.

Statement of drafts on General Jesup.

1849.							
August	23	-	-	-	-	-	\$5,000 00
September	1	-	-	-	-	-	5,000 00
	3	-	-	-	-	-	3,000 00
	8	-	-	-	-	-	100 00
October	4	-	-	-	-	-	21,967 39
	5	-	-	-	-	-	1,178 80
	6	-	-	-	-	-	8,000 00
	11	-	-	-	-	-	300 00
	11	-	-	-	-	-	1,800 00
	11	-	-	-	-	-	1,000 00
	12	-	-	-	-	-	332 00
	29	-	-	-	-	-	800 00
	29	-	-	-	-	-	1,823 52
November	9	-	-	-	-	-	140 00
	10	-	-	-	-	-	14,310 00
	19	-	-	-	-	-	5,000 00
	26	-	-	-	-	-	2,100 00
December	10	-	-	-	-	-	2,000 00
	10	-	-	-	-	-	1,000 00
	29	-	-	-	-	-	1,000 00
1850.							
January	7	-	-	-	-	-	900 00
	12	-	-	-	-	-	83 23
February	7	-	-	-	-	-	17,045 68
	12	-	-	-	-	-	463 56
	23	-	-	-	-	-	600 00
March	21	-	-	-	-	-	100 00
June	1	-	-	-	-	-	450 00
July	2	-	-	-	-	-	500 00
	3	-	-	-	-	-	1,403 25
							<u>97,997 43</u>

Statement of amounts received.

1849.							
November	12	-	-	-	-	-	\$180 00
November	20	-	-	-	-	-	500 00
1850.							
February	20	-	-	-	-	-	20,000 00
March	31	-	-	-	-	-	80 00
April	13	-	-	-	-	-	700 00
	15	-	-	-	-	-	50 00
August	8	-	-	-	-	-	10,000 00
							<u>31,510 00</u>
							<u>97,997 43</u>
Total amount		-	-	-	-	-	<u>129,507 43</u>

A. C. MYERS,
Brevet Major and Assistant Quartermaster.

Note by the Quartermaster General.

In addition to the foregoing, the following-named officers have expended the amounts opposite their names on account of the war in Florida, viz :

Brigadier General H. Whiting, New York	-	-	-	\$10,297 00
Lieutenant Colonel D. D. Tompkins, Boston	-	-	-	5,500 00
Major G. H. Crosman, Philadelphia	-	-	-	25,988 00
Captain M. S. Miller, Savannah	-	-	-	53,052 00
Colonel T. F. Hunt, New Orleans	-	-	-	293,000 00
Captain R. E. Clary, New Orleans	-	-	-	50,492 00
By other officers, estimated at	-	-	-	30,000 00
				<hr/> 468,329 00 <hr/>

HEADQUARTERS WEST DIVISION,
Tampa, June 10, 1850.

MAJOR: The general of division, in retiring from the immediate command of the troops in Florida, desires to express his entire satisfaction with the administration of the quartermaster's department under your control during the past year.

Its complicated duties have been conducted with efficiency and great economy, the wants of service have been fully supplied, the interest of the government carefully guarded. The depot officers Major Donaldson and Captain Jordan have given like satisfaction. Be pleased to inform them how entirely they have fulfilled their duties.

To Major Donaldson especially credit is due for the skill and energy with which he organized and conducted the principal depot.

I have the honor to be, sir, very respectfully, your obedient servant,

W. W. MACKALL,
Assistant Adjutant General.

Major A. C. MYERS,
Assistant Quartermaster and Chief of the Department in Florida.







